BROWN INITIATIVE FOR POLICY

MHA RI
Mental Health Association of Rhode Island

The State of Behavioral Healthcare in Rhode Island

2020 Report

The **Mental Health Association of Rhode Island (MHARI)** operates with the mission of promoting and nourishing mental health through advocacy, education, and policy development. Its guiding values are compassion and altruism, collaboration and cooperation, equality and justice, and innovation. MHARI is an affiliate of Mental Health America.

The **Brown Initiative for Policy (BIP)** is Brown University's first and only student-run, non-partisan think tank. BIP leverages quantitative and qualitative research to propose and advocate for sensible solutions to problems in the community. With the goal of assisting local leaders, building meaningful relationships, and training critical thinkers, BIP's goal is to empower the next generation of public policy-shapers in local communities and nationwide.

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Darkness Before the Dawn

A Letter from the Executive Director of MHARI

This report could not have come at a more pivotal time. For almost two years, the world has been living through a pandemic and contending with a collective mental health crisis. COVID-19 upended our way of life for a year, and while we hope the end is in sight, it continues to follow us like a dark cloud. Workers are struggling with burnout. Vitriolic partisan politics have divided our country and turned neighbors into enemies. Many of us feel isolated and unsupported. Some are dealing with financial hardship and the housing shortage. Everything has felt so dark and so heavy for so long. Rates of depression, anxiety, substance use, and suicidal ideation remain elevated, and the increased demand for services has stressed and tested the limits of Rhode Island's behavioral healthcare system. The need for access to treatment and services has never been greater. Just thinking about all this exhausts me.

Amidst all the loss and suffering, the pandemic has also gifted us with a national dialogue on mental health and mental illness, telemedicine, and a windfall of federal funding from the American Rescue Plan Act. This unique opportunity presents Rhode Island with a choice: Do we continue to neglect and underfund our continuum of behavioral healthcare, or do we soften our hearts and embrace our moral duty to take care of those who are vulnerable, those who need a helping hand, and those who are living with mental illness and other disabilities? This critical moment will define who we are.

The "The State of Behavioral Healthcare in Rhode Island" aims to educate our leaders about where we need attention and financial investment. We hope this report will empower them to make improvements to the system. As our first attempt at this research project, it is by no means comprehensive. Collecting data from dozens of sources in the midst of a pandemic proved to be more challenging than anticipated; people are working remotely and hard to reach, or they are overworked and overwhelmed and don't have the bandwidth to compile data for us. We also learned that some of the data we were seeking does not currently exist, and we look forward to working with stakeholders to uniformly collect it in the years to come. Future iterations of this report will also include a quantifiable assessment of Rhode Island's continuum of behavioral healthcare, an assessment of the needs of homeless individuals with mental illness, and a deeper dive into the unmet needs of children/adolescents and former inmates.

This report shines a light into the gaping holes in Rhode Island's continuum of care, through which people are slipping and getting stuck. While it is encouraging to see that outpatient services are the most utilized level of care, we can't ignore that Emergency Departments are the second most utilized level of care. We must address the shortage of outpatient psychiatrists and school mental health professionals. We also cannot disregard the fact that our leaders have neglected to fund the full continuum of care so much so that Rhode Island does not have any psychiatric nursing homes or a standalone state-funded civil psychiatric hospital. If we did, we would have fewer patients unnecessarily institutionalized in El-

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eanor Slater Hospital, prisons and homeless shelters. Furthermore, while the State has sought to defund and close ESH's civil psychiatric facilities, MHARI and other community advocates are fighting hard to preserve them because they are an important part of the full continuum of behavioral healthcare and a "placement of last resort" for a handful of patients with severe or life threatening psychiatric disabilities. We have urged the State to either (1) renovate ESH's civil commitment facilities, open them to new admissions, and provide rehabilitative services to patients who can be discharged to less restrictive settings, or (2) build a new long term residential treatment facility to serve as a "placement of last resort" for those who need it. MHARI and other advocates won't stop fighting for these vulnerable patients. While their numbers are few, their suffering is great.

I believe in the old adage that it is always darkest before the dawn, and because hope fuels my passion and determination to keep fighting, I will grasp at the flickering sparks of hope in the middle of this darkness. I see a future where our leaders' hearts are softened with compassion and emboldened by the rightness of their convictions. I believe they will stop viewing public health matters through a business lens. I know our leaders care about Rhode Islanders' health and human rights. I trust they will finally establish an Olmstead Plan for people with disabilities, including serious and persistent mental illness.

This report would not have been possible without the Brown Initiative for Policy. Each student who worked on this report has made a lasting contribution to the mental health community. I am grateful for and inspired by their hard work, perseverance and passion for this project. I am also thankful for the time, patience, collaboration and support from the Rhode Island Department of Behavioral Health, Developmental Disabilities, and Hospitals; the Rhode Island Department of Corrections; the Data Ecosystem; SAMHSA's Massachusetts Regional Office; the Rhode Island Office of Management and Budget; the Rhode Island Department of Education; Freedman Healthcare and so many more partners who provided information for this report. We also owe a debt of gratitude to the Rhode Island Foundation for helping to fund this project. Thank you all.

The mental health community's need is great. Everyone has a role to play. Let's get to work.

Together.

Sincerely,

Laurie-Marie Pisciotta
Executive Director
Mental Health Association of Rhode Island

INTRODUCTION

More so now than ever, it is clear that the United States of America is battling a collective behavioral health crisis. According to the National Institute of Mental Health (NIMH), approximately one in five United States adults lived with a mental illness in 2019 — a rate that was among the highest compared to other high-income countries.[1] Furthermore, the National Survey on Drug Use and Health (NSDUH) found that 20.1 million Americans aged 12 or older battled a substance use disorder in 2019.[2]

While there has been an increasingly visible effort to eliminate the stigma associated with mental health treatment, it is important to note that this approach alone is likely not sufficient to diminish the prevalence of mental illness in the United States. Concerningly, when compared to other high-income countries, adults in the United States are among the most likely to report issues of access or affordability when seeking professional help for emotional distress. For example, according to a survey conducted by The Commonwealth Fund, 15% of United States adults report not being able to receive mental health treatment due to cost, compared to 3% of adults in the Netherlands.[3] Moreover, the correlation between emotional distress and economic concerns is stronger in the United States than in other countries: 45% of United States individuals who report being worried about having money for food and housing also report experiencing emotional distress, compared to only 16% of such individuals in the United Kingdom.[4] These discrepancies reveal a critical need to prioritize the structural shortcomings of our nation's behavioral healthcare system when tackling the growing United States mental health crisis, in addition to focusing on destigmatizing mental illness treatment.

One factor underlying these concerning trends is our nation's low mental health workforce capacity relative to other high-income countries. The United States has only 105 mental health professionals per 100,000 population. Australia and Sweden have 207 and 221 mental health professionals per 100,000 population, respectively, while Canada has nearly 300.[5] Our nation's relative lack of mental health-related workforce is reflected in other areas of the United States healthcare system; fewer than one-third of primary care physicians in the United States report collaborating with mental health providers to facilitate treatment of patients.3

Critically, these myriad systemic shortcomings are accompanied by tragic behavioral health-related outcomes in the United States — and the need to address them has never been more urgent. While other high-income countries such as France and Switzerland have seen marked decreases in suicide rates, the suicide rate in the United States has increased every year since 2000. As of 2019, the United States has one of the highest suicide rates in the industrialized world; within the United States, suicide is the fourth leading cause of death.[6] Furthermore, the rate of death from substance use disorders in the United States is triple the average among Organisation for Economic Cooperation and Development (OECD) countries.3 Rhode Island is no exception to these concerning trends in behavioral health. For example, the rate of serious mental illness and percentage of individuals who report suicidal thoughts have consistently risen above the national average over the past two decades.[7,8]

It is abundantly clear that behavioral health must be made both a national priority as well as a statewide priority for Rhode Island. This is particularly true in the context of the past year, which has been rife

[1] National Institute of Mental Health. (2021). Mental Illness Statistics. https://www.nimh.nih.gov/health/statistics/mental-illness

[2] Substance Abuse and Mental Health Services Administration. (2020). Key substance use and mental health indicators in the United States: Results from the 2019 National Survey on Drug Use and Health (HHS Publication No. PEP20-07-01-001). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/sites/default/files/reports/rpt29393/2019NSDUHFFRPDFWHTML/2019NSDUHFFR1PDFW090120.pdf.

[3] Roosa Tikkanen et al., *Mental Health Conditions and Substance Use: Comparing U.S. Needs and Treatment Capacity with Those in Other High-Income Countries* (Commonwealth Fund, May 2020). https://doi.org/10.26099/09ht-rj07

[4] Ibid.

[5] Global Health Observatory (GHO) Data Repository (2016). *World Health Organization (WHO)*. https://apps.who.int/gho/data/node.main.MHHR?lang=en

[6] Hedegaard et al., *Increase in Suicide Mortality in the United States, 1999-2018*. (NCHS, April 2020). https://www.cdc.gov/nchs/data/databriefs/db362-h.pdf

[7] Substance Abuse and Mental Health Data Archive (SAMHDA), 2000-2019. https://pdas.samhsa.gov/#/

[8] Underlying Cause of Death 1999-2019 on CDC WONDER Online Database, released 2020. Data are compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program.

with isolation, anxiety, and grief for so many Americans. The strategies leveraged to mitigate the spread of COVID-19 have had damaging — yet under-discussed — implications for mental health and suicidal ideation across the United States.[9] Indeed, recent studies have reported that the isolation imposed by the pandemic has yielded increases in psychological distress and loneliness that are predictive of heightened anxiety, depression, and suicidal ideation.[10] There has never been a more crucial time to encourage collaboration across social and public policy sectors to ensure that access barriers do not prevent the dissemination of the first-rate behavioral healthcare of which Rhode Island is wholly capable.

This report was compiled with the principal goal of highlighting Rhode Island's progress and shortcomings in important metrics related to behavioral healthcare. It takes into account clinical statistics, trends in budgetary allocation, and discrepancies in access to treatment. It is the intent of the Mental Health Association of Rhode Island to make this report an annual release, with the aim of drawing attention to the critical role of behavioral health advocacy in ensuring transparency, parity, and progress for the benefit of all Rhode Islanders. The analyses herein were compiled with the goal of being disseminated for consumption by the general public, policymakers, and behavioral healthcare providers alike. By pooling resources and working in concert, behavioral health can be prioritized on the policy agenda and barriers to accessing care can be eliminated.

[9] Betty Pfefferbaum and Carol S. North, "Mental Health and the COVID-19 Pandemic" (Perspective), *New England Journal of Medicine*, published online Apr. 13, 2020.
[10] Smith, C. J., & Bilbo, S. D. (2021). Sickness and the Social Brain: Love in the Time of COVID. Frontiers in psychiatry, 12, 633664. https://doi.org/10.3389/fpsyt.2021.633664

METHODOLOGY

The data referenced herein were obtained from a mixture of publicly available repositories and collaborations with state agencies between the months of May 2020 and July 2021. Where applicable, online databases are cited in footnotes throughout the report. All state agencies mentioned here were provided with a copy of the report prior to its publication to ensure accurate representation of relevant metrics, but no entity apart from the Brown Initiative for Policy and Mental Health Association of Rhode Island had any role in influencing the content of the report text aside from factual verification.

Data Provided by the Rhode Island Executive Office of Health and Human Services

According to R.I.G.L. §42-7.2-2, the Rhode Island Executive Office of Health and Human Services (EOHHS) is "the principal agency of the executive branch of state government" and is designated as the sole State agency to administer the Medicaid program in Rhode Island. Six separate departments fall under the umbrella of the RI EOHHS and provide a mixture of direct, regulatory, protective, and health promotion services to over 300,000 Rhode Islanders.[1]

Data provided by the RI EOHHS are drawn from Rhode Island's All-Payer Claims Database (RI APCD). As described by HealthFacts RI, the RI APCD "collects enrollment, healthcare claims, and provider data from all public and private insurers doing business in the state of Rhode Island." Created in 2015, the principal aim of the RI APCD is to facilitate transparency regarding quality, cost, and efficiency of Rhode Island's healthcare delivery system. [2]

Per state regulations, "all covered health insurers and related parties" must register and participate in the RI APCD. Specifically, this means that any insurer, third-party administrator (TPA), pharmacy benefits manager (PBM), or carve-out payer must submit data if they fulfill the following criteria: a) A Rhode Island plan covering more than 3,000 Rhode Island residents as of January 1; or b) A Rhode Island small employer health insurance plan covering more than 3,000 members regardless of the member's state of residency.[3] Monthly data are collected from eight commercial data submitters, Medicaid (including MCOs), and Medicare (including Medicare Advantage plans). Importantly, the RI APCD does not include non-claims data or Medicare Part D. For a full explanation of the RI APCD including opt-out options, mechanics, and data flow, readers are encouraged to reference R23-17.17-RIAPCD or see the RI APCD Technical Specifications Manual.

Data Provided by the Rhode Island Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals

Under the umbrella of the EOHHS, the Rhode Island Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals (BHDDH) facilitates the delivery of safe and accessible healthcare services for individuals with differing intellectual/developmental abilities, mental health or substance use disorders, or who are in the care of facilities administered by BHDDH.[4] Under BHDDH, the Licensing Office processes licenses for organizations that provide behavioral healthcare services, services for persons with intellectual/developmental disabilities, and services for persons with cognitive disabilities.[5] The BHDDH licensure period is for two years.

Data provided by BHDDH are drawn from several sources. Regardless of the source of payment,

[1] About EOHHS. (2021). *State of Rhode Island Executive Office of Health and Human Services*. https://eohhs.ri.gov/about-eohhs

[2] SIM Project Summary: Rhode Island's All-Payer Claims Database. (2017). *HealthFacts RI.* https://eohhs.ri.gov/sites/g/files/xkgbur226/files/Portals/0/Uploads/Documents/SIM/HealthFactsRI-APCD-ProjectSummary-Final.pdf

[3] Technical Specifications Manual: Rhode Island's All-Payer Claims Database. (Sept. 2019). *Onpoint Health Data.* https://health.ri.gov/materialbyothers/RIAllPayerClaimsDatabase-TechnicalSpecificationsManual.pdf

[4] Our Mission, Vision, and Values. (2021). *State of Rhode Island Department of Behavioral Healthcare, Disabilities and Hospitals* (BHDDH). https://bhddh.ri.gov/about/missionstatement/

[5] Licensing. (2021). *State of Rhode Island Department of Behavioral Healthcare, Disabilities and Hospitals* (BHDDH). https://bhddh.ri.gov/developmentaldisabilities/provider/licensing/index.php

BHDDH-licensed providers are required to enter data on all clients receiving services into the Rhode Island Behavioral Health On-line Data (BHOLD) system. Treatment data found in RI-BHOLD generally follow the guidelines of the Substance Abuse and Mental Health Services Administration (SAMHSA). Enrollment data, as well as race and ethnicity data for clients, is drawn from RI-BHOLD. For staff breakdowns and related information, BHDDH provided data drawn from its human resources database. Lastly, hospital waiting data were drawn from the RI Behavioral Health Open Beds (RI BHOB) system, a portal created in collaboration with the Rhode Island Quality Institute (RIQI).[6]

Data Provided by the Rhode Island Department of Corrections

The only data featured in this report provided directly by the Rhode Island Department of Corrections (DOC) are those pertaining to pharmaceutical expenditures for inmates in various correctional facility types. The tabulation of these values was conducted by Contract Pharmacy Services on behalf of RI DOC.

Data Obtained from Online Repositories

Some metrics detailed herein were publicly available online and were not obtained directly from a Rhode Island state agency or department. *Only data published or endorsed by branches of the federal or Rhode Island state government were used for this report.* Footnotes are used throughout this report to cite pertinent sources, but examples of relevant, publicly available data are below:

- Substance Abuse and Mental Health Services Administration (SAMHSA)
  - Uniform Reporting System (URS)
  - Substance Abuse and Mental Health Data Archive (SAMHDA)
  - National Survey on Drug Use and Health (NSDUH)
- Centers for Disease Control and Prevention (CDC)
  - National Vital Statistics System (NVSS) of the National Center for Health Statistics (NCHS)
- Department of Justice (DOJ)
  - Bureau of Justice Statistics (BJS)
- United States Census Bureau
- Rhode Island Office of Management and Budget (RI OMB)

[6] About. (2021). *Rhode Island Behavioral Health Open Beds (BHOB) System*. https://www.ribhopenbeds.org/about

1

MENTAL HEALTH OUTCOMES

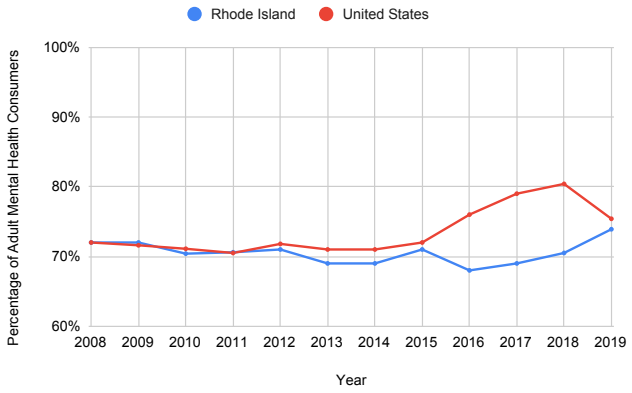
Downstream of every dimension of the behavioral healthcare delivery system are individual and collective mental health outcomes. The most tangible benchmark of success in service delivery, this section includes not only concrete measurements such as suicide rates in Rhode Island, but also qualitative assessments of overall care.

Perception of Care

In order to gauge client evaluation of mental health care, the Rhode Island Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals (BHDDH) uses the BHDDH Outcome Evaluation Instrument to conduct the Mental Health Statistical Improvement Program (MHSIP) survey. It is important to note that the survey is only administered to enrollees of integrated home health (IHH) and assertive community treatment (ACT) programs, meaning its respondents largely have diagnoses of serious and persistent mental illness (SPMI).

When evaluating care outcomes, clients are deemed to have "positive" impressions of their care if they report an improvement of symptoms or social functioning, making this measure a critical consideration when assessing the efficacy of Rhode Island's behavioral healthcare system.[1] Concerningly, Rhode Island has consistently underperformed the national rate of consumers reporting positively about service outcomes since 2012, dropping as low as 68% in 2016 (**Fig. 1.1**). It is important to note the disconnect between Rhode Island behavioral healthcare consumers' perceptions of positive service outcomes and positive service access; even when the rate of positive outcome reports climbed to 73.9% in 2019, there was still nearly a 20% gap between those who reported ease accessing care (93.4%) and those who were content with its efficacy.

Figure 1.1: Percentage of Adult Mental Health Consumers "Reporting Positively about Service Outcome"

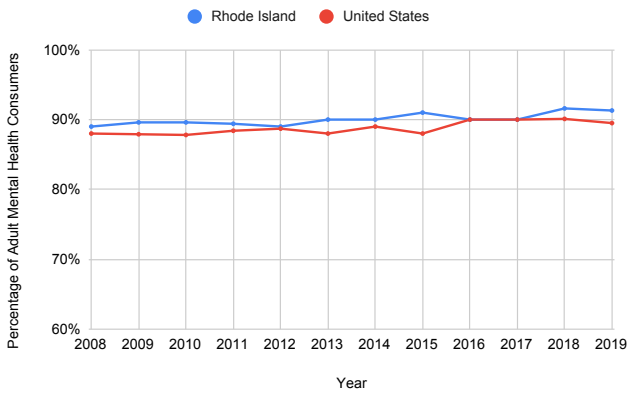


(**i**) Data reported by fiscal year.

(**ii**) Data from the Mental Health Statistical Improvement Program (MHSIP) survey, conducted by the Rhode Island Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals (BHDDH) using the BHDDH Outcome Evaluation Instrument. Results of the survey are found in the Uniform Reporting System (URS) reports, published annually by the Substance Abuse and Mental Health Services Administration (SAMHSA).

(**iii**) Individuals classified as reporting positively about service outcome had "positive responses" to statements related to improvements in social functioning and symptoms that appeared in the Mental Health Statistical Improvement Program (MHSIP) survey. Such survey items include: "I deal more effectively with daily problems," "I do better in social situations," and "My symptoms are not bothering me as much." More information regarding MSHIP items and coding procedures can be found in *SAMHSA Uniform Reporting System FY Table Reporting Instructions*, available publicly on the website of NRI (a not-for-profit organization that processes and reviews data on behavioral health delivery systems).

Figure 1.2: Percentage of Adult Mental Health Consumers "Reporting Positively about General Satisfaction of Care"



(**i**) Data reported by fiscal year.

(**ii**) Data from the MHSIP survey, conducted by BHDDH using the BHDDH Outcome Evaluation Instrument. Results of the survey are found in the URS reports, published annually by SAMHSA.

(**iii**) Individuals classified as reporting positively about general satisfaction had "positive responses" to the following statements in the MHSIP survey: "I liked the services that I received here," "If I had other choices, I would still get services at this agency," and "I would recommend this agency to a friend or family member." More information regarding MSHIP items and coding procedures can be found in *SAMHSA Uniform Reporting System FY Table Reporting Instructions*, available publicly on NRI's website.

[1] SAMHSA Uniform Reporting System FY 2018 Table Reporting Instructions (Aug. 2018). *Substance Abuse and Mental Health Services Administration (SAMHSA)*. https://www.nri-inc.org/media/1485/2018-urs-table-instructions.pdf

This relatively low rate of positive service outcome perceptions does not seem to reflect Rhode Islanders' overall satisfaction levels regarding mental health services. In 2019, 91.3% of adults receiving treatment for mental health conditions in Rhode Island reported positively in the "general satisfaction" measure of the MHSIP — that is, indicated "liking the services" they received at a given agency (**Fig. 1.2**). Notably, for the past decade, Rhode Island has either met or exceeded the national average for this metric.

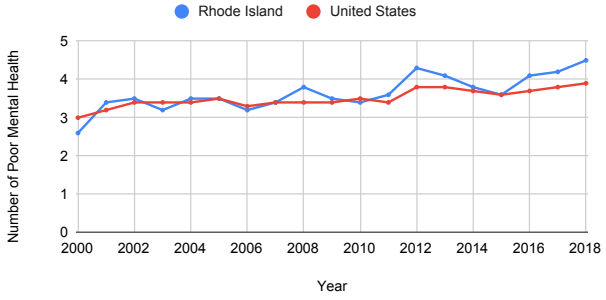
Self-Reporting and Statewide Estimates of Mental Distress

"America's Health Rankings" system, published by the United Health Foundation, unifies state-level and national data to present state rankings of various health benchmarks — including the reported frequency of "poor mental health days."[2] When asked to estimate the number of "poor mental health days" in the past month on which their mental health was "not good," Rhode Islanders on average have reported between 3.5 and 4 days for the past two decades (**Fig. 1.3**). Relative to other states, Rhode Island has consistently ranked in the middle of the pack between 2000 and 2019.

Another metric measured by America's Health Rankings System is the prevalence of "frequent mental distress," as determined by respondents indicating that their mental health was "not good" for 14 or more of the past 30 days. Between 2012 and 2019, a yearly average of nearly 13% of respondents in Rhode Island answered "yes" to this question, indicating "frequent mental distress" (**Fig. 1.4**). Rhode Island's national ranking on this metric has varied considerably since 2012 and has not ranged far from the United States average, but it is nonetheless worth noting that anywhere from one in ten to one in seven Rhode Islanders report spending over half of the past month in mental distress.

It is important to note that the prevalence of self-reported mental distress seems to be particularly

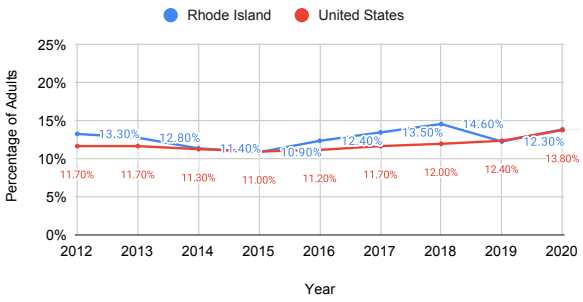
Figure 1.3: Average Number of Self-Reported Poor Mental Health Days in the Past Month



(**i**) Data from the United Health Foundation's "America's Health Rankings" system.

(**ii**) The average number of poor mental health days was determined by asking adults to estimate the number of days in the past month in which their mental health was "not good."

Figure 1.4: Percentage of Adults Reporting Frequent Mental Distress



(**i**) Data from the United Health Foundation's "America's Health Rankings" system.

(**ii**) Adults classified as reporting frequent mental distress indicated that their mental health was "not good" for at least 14 of the past 30 days.

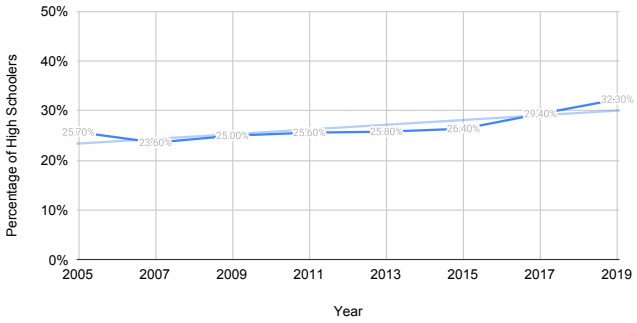
elevated in adolescents. Conducted by the Rhode Island Department of Health, the Youth Risk Behavior Survey (YRBS) is a 99-item questionnaire distributed every other year to a random cohort of middle school and high school students (with the most recent data released in 2019).[3] In each survey dating back to 2005, over *one-quarter* of high school respondents reported experiencing sadness and hopelessness that imparied social functioning (**Fig. 1.5**). Critically, this mark has consistently increased since 2005 and reached its highest point in 2019, with 32.3% of high school respondents indicating persistent sadness and hopelessness.

Similarly relying on self-reported symptoms of mental distress, the National Survey on Drug Use

[2] Our Mission: America's Health Rankings. (2021). *United Health Foundation*. https://www.americashealthrankings.org/

[3] Youth Risk Behavior Survey. (2021). *State of Rhode Island Department of Health (RIDOH)*. https://health.ri.gov/data/adolescenthealth/

Figure 1.5: Percentage of Rhode Island High Schoolers Reporting Persistent Sadness and Hopelessness That Caused Impaired Social Functioning



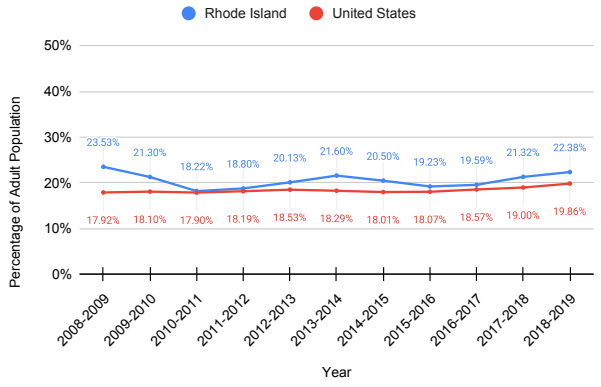
(**i**) Data from the Youth Risk Behavior Survey (YRBS), conducted by the State of Rhode Island Department of Health (RIDOH).

(ii) Individuals classified as reporting persistent sadness or hopelessness answered "yes" to the question "*During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?*" on the YRBS.

and Health (NSDUH) is distributed by the Substance Abuse and Mental Health Services Administration (SAMHSA) annually to tens of thousands of Americans with the goal of estimating the prevalence of mental illness at the state and national levels.[4] The components of the NSDUH are designed with the goal of assessing whether respondents fit criteria of various mental illnesses as defined by the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). Specifically, the NSDUH classifies individuals as having *any mental illness* (AMI) "if they had any mental, behavioral, or emotional disorder in the past year of sufficient duration to meet DSM-IV criteria."[5] Moreover, those with AMI were classified as having serious mental illness (SMI) "if they had any mental, behavioral, or emotional disorder that substantially interfered with or limited one or more major life activities."

According to the survey estimates, Rhode Island has consistently — though not dramatically — exceeded the estimated United States prevalence of both AMI and SMI over the past decade (**Fig. 1.6, Fig. 1.7**). Between 2008 and 2018, an average of 20.6% of Rhode Island individuals aged 18 or older were estimated to have had AMI in the preceding year, compared to a 2008-2018 average of 18.4% at the national

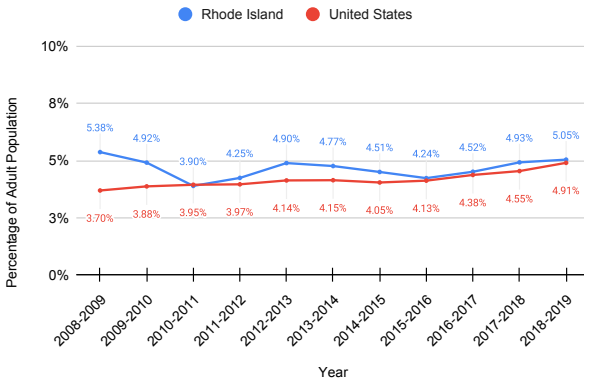
Figure 1.6: Estimated Percentage of Adult Population with Any Mental Illness



(i) The National Survey on Drug Use and Health (NSDUH), conducted by SAMHSA, defines any mental illness (AMI) "as having a diagnosable mental, behavioral, or emotional disorder, other than a developmental or substance use disorder, assessed by the Mental Health Surveillance Study (MHSS) Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders—Fourth Edition—Research Version—Axis I Disorders (MHSS-SCID), which is based on the 4th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). Three categories of mental illness severity are defined based on the level of functional impairment: mild mental illness, moderate mental illness, and serious mental illness. Any mental illness includes individuals in any of the three categories."

(ii) For more information on NSDUH methodology, see *Appendix A*.

Figure 1.7: Estimated Percentage of Adult Population with Serious Mental Illness



(**i**) NSDUH defines serious mental illness (SMI) as having AMI (refer to Fig. 1.6 for definition of AMI) that results in "serious functional impairment."

(**ii**) For more information on NSDUH methodology, see *Appendix A*.

level. Similarly, NSDUH state estimates for SMI prevalence in Rhode Island ranged from a high of 5.38% in 2008 to a low of 3.9% in 2010, with the 10-year average between 2008 and 2018 being 4.67% compared to the 4.16% national average over the same span. It is worth noting the unfavorable trends at both the state and national levels: neither estimates of AMI or SMI have demonstrated any meaningful decrease

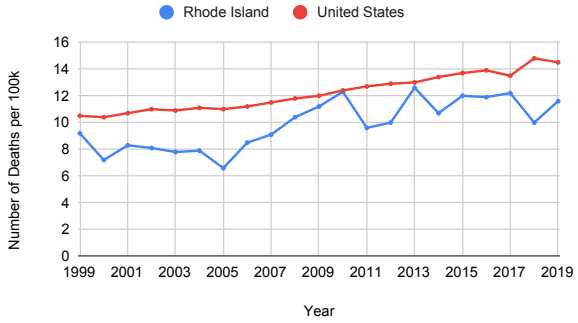
[4] NSDUH: About the Survey. (2021). *National Survey on Drug Use and Health (NSDUH)*. https://nsduhweb.rti.org/respweb/about_nsduh.html

[5] Substance Abuse and Mental Health Services Administration. (2020). Key substance use and mental health indicators in the United States: Results from the 2019 National Survey on Drug Use and Health (HHS Publication No. PEP20-07-01-001, NSDUH Series H-55). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/

over the past decade, and have instead mostly increased.

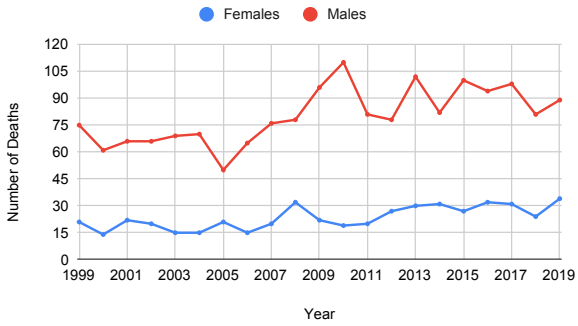
It is important to emphasize that the aforementioned NSDUH metrics reflect estimates of mental illness *prevalence* rather than mental illness diagnostic rates or treatment rates. Such estimates thus consider *all* individuals with self-reported mental distress, not just those who have sought treatment or been diagnosed — a distinct difference from claims data (see *Section 2: Utilization of Mental Health Services*).

Figure 1.8: Deaths by Suicide per 100,000 Population



(i) Data from the Centers for Disease Control and Prevention (CDC) WONDER Database

Figure 1.9: Deaths by Suicide in Rhode Island by Gender



(i) Data from the CDC WONDER Database

Figure 1.10: Rank of Suicide as Leading Cause of Death (RI vs. U.S.)

	Rhode Island	United States
1999	11	11
2000	13	11
2001	13	11
2002	13	11
2003	12	11
2004	11	11
2005	13	11
2006	12	11
2007	12	11
2008	12	10
2009	11	10
2010	11	10
2011	12	10
2012	12	10
2013	10	10
2014	12	10
2015	12	10
2016	11	10
2017	11	10

(i) A rank of 1 indicates that suicide was that year's leading cause of death, according to the CDC WONDER Database.

Suicide

Overview

Numerous federal agencies, including the Centers for Disease Control and Prevention (CDC) and the National Institute of Mental Health (NIMH), have characterized suicide as a serious public health problem in the United States. Rates of suicide increased 33% between 1999 and 2019 in the United States, with nearly 48,000 Americans dying from suicide in 2019 — a rate of one death every 11 minutes.[6,7] A multidimensional and nuanced issue, suicide in the United States is prevalent among all age groups and demographics. Nonetheless, younger individuals and males seem to be disproportionately impacted: in 2018, suicide the was second-leading cause of death for Americans aged 10-34 (compared to the tenth leading cause of death among all age groups) and occurred at an age-adjusted rate nearly four times higher in males than females.[8,9] Given the devastatingly far-reaching impact of suicide on emotional, social, and economic wellbeing at both individual and societal levels, it is imperative for policymakers and the general public to remain cognizant of its preventability.

While deaths by suicide per 100,000 population have increased in both Rhode Island and the United States over the past two decades, the rate in Rhode Island has consistently remained below the national

[6] Suicide Prevention: Fast Facts. (March 2021). *Centers for Disease Control and Prevention (CDC), National Center for Injury Prevention and Control*. https://www.cdc.gov/suicide/facts/index.html

[7] Suicide. (Jan. 2021). *National Institute of Mental Health*. https://www.nimh.nih.gov/health/statistics/suicide

[8] Ibid.

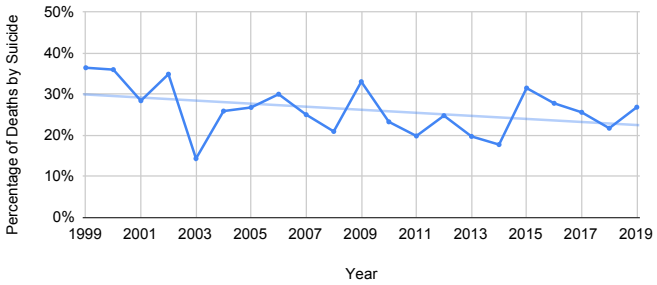
[9] CDC. Web-based Injury Statistics Query and Reporting System (WISQARS). (2020) Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control.

average (**Fig. 1.8**). In 2019, Rhode Island's crude rate of suicide deaths per 100,000 population was 11.6, compared to the overall United States rate of 14.5. Additionally, the aforementioned national trends in gender differences can also be observed in Rhode Island: from 1999 to 2019, the rate of suicide per 100,000 population in males was over three times greater than that of females (**Fig. 1.9**). Suicide has varied between the 10th and 13th leading cause of death in Rhode Island between 1999 and 2019. Nationwide, it was the 11th leading cause of death from 1999 to 2007 and the 10th leading cause from 2008 to 2019 (**Fig. 1.10**).

Suicides by Firearm

According to the CDC WONDER Online Database,[9] there were 2,190 total deaths by suicide in Rhode Island between 1999 and 2019 at a cumulative rate of 9.9 deaths by suicide per 100,000 population. Of these, 578 (or approximately 26.4%) were by firearm (**Fig. 1.11**).

Figure 1.11: Percentage of Deaths by Suicide in RI Completed by Firearm

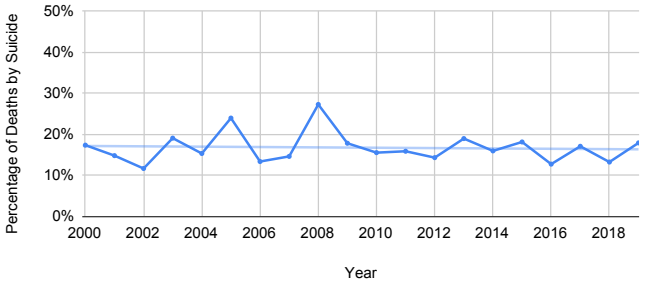


(**i**) Calculated using data from the CDC WONDER Database

Copious research has explored the relationship between firearms and suicide risk. Critically, researchers have established that the availability of firearms dramatically increases suicide risk, as a self-inflicted gunshot wound is among the most lethal means of suicide.[10, 11] In keeping with this assertion, suicide rates among all age demographics are consistently higher in states whose residents are more likely to own a firearm.[12]

As an illustrative example of this relationship between gun ownership and suicide risk, we will briefly compare Rhode Island to Wyoming. Rhode Island's rate of gun ownership is 14.8%, the third-lowest nationwide.[13] On the other end of the spectrum is Wyoming, which as of 2020 had a gun ownership rate of 66.2%. In Wyoming, there were 2,566 deaths by suicide between 1999 and 2019, corresponding to a cumulative rate of 22.4 per 100,000 population — far exceeding the suicide rate in Rhode Island. Of these, 1,682 (or approximately 65.8%) were by firearm. Strikingly, when excluding suicides using a firearm as a lethal means, the rates of suicide in Rhode Island and Wyoming during this span were nearly *identical* (7.3 per 100,000 population versus 7.7, respectively). Thus, a state's increased suicide rate seems to not only be *associated* with higher gun ownership, but also appears to be *accounted* for by the state's suicides using firearms. Although we have only illustrated this point using one example, it is important to note that these observations hold true in many other analogous comparisons among states.

Figure 1.12: Percentage of Deaths by Suicide in RI Completed by Intentional Drug Overdose



(**i**) Calculated using data from the CDC WONDER Database

Suicides by Intentional Drug Overdose

The number of deaths by intentional drug overdose has varied year-to-year in Rhode Island (**Fig. 1.12**), comprising an average of 16.7% of total deaths from suicide on an annual basis between 1999 and 2019.[9] The crude rate of intentional drug overdose during this period in Rhode Island (1.6 per

[10] Kiewra, K. Guns and Suicide: A Fatal Link. (2008). *Harvard T.H. Chan School of Public Health*. https://www.hsph.harvard.edu/news/magazine/guns-and-suicide/

[11] Studdert, D. M., Zhang, Y., Swanson, S. A., Prince, L., Rodden, J. A., Holsinger, E. E., Spittal, M. J., Wintemute, G. J., & Miller, M. (2020). Handgun ownership and suicide in California. *New England Journal of Medicine*, *382*(23), 2220-2229. https://doi.org/10.1056/NEJMsa1916744

[12] Martinelli, S. States With Lower Gun Ownership and Strong Gun Laws Have Lowest Suicide Rates. (Sept. 2020). *Violence Policy Center*. https://vpc.org/press/states-with-lower-gun-ownership-and-strong-gun-laws-have-lowest-suicide-rates/

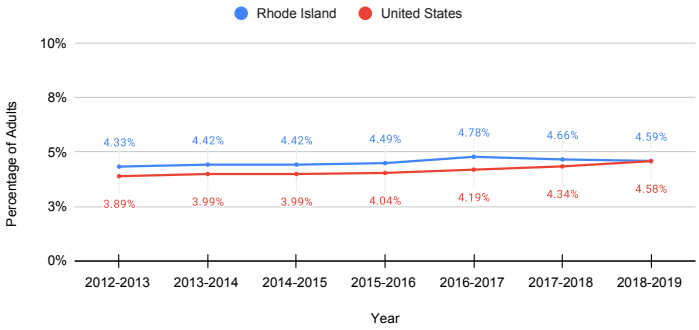
[13] Schell, T.L., Peterson, S., Vegetabile, B.G., Scherling, A., Smart, R., and Andrew R. Morral. State-Level Estimates of Household Firearm Ownership. Santa Monica, CA: RAND Corporation. (2020). *RAND Corporation*. https://www.rand.org/pubs/tools/TL354.html.

100,000 population) is nearly identical to the nationwide rate (1.5) over the same interval.

Suicidal Ideation

The National Institute of Mental Health defines suicidal ideation as "thinking about, considering, or planning suicide."[14] According to SAMHSA, the percentage of adults reporting serious thoughts of suicide in the past 12 months has been stagnant or increasing over the course of the past decade, both nationwide and in Rhode Island (**Fig. 1.13**). In 2018, this estimated percentage was 4.59% in Rhode Island and 4.58% nationwide. Additionally, in the eight reports released between 2005 and 2019, the Rhode Island YRBS found that anywhere between 11.8% and 15.9% of high school respondents reported having seriously considered attempting suicide in the preceding 12 months (**Fig. 1.14**). Such results underscore the exigent need for well-trained mental health counselors in academic settings.

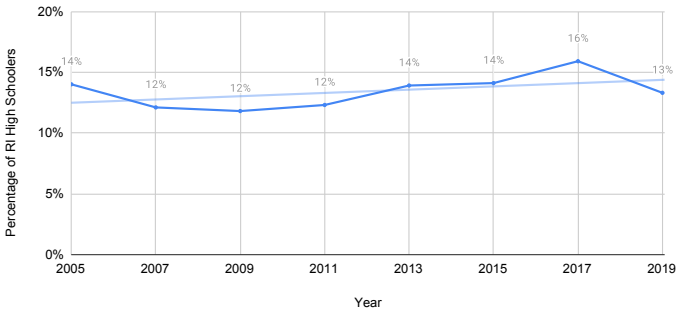
Figure 1.13: Estimated Percentage of Adults Having Serious Thoughts of Suicide in the Past Year



(i) Individuals classified as having serious thoughts of suicide answered "yes" to the question *"At any time in the past 12 months, did you seriously think about trying to kill yourself?"* on the NSDUH.

(ii) For more information on NSDUH methodology, see *Appendix A.*

Figure 1.14: Percentage of Rhode Island High Schoolers Reporting Having Seriously Considered Attempting Suicide in the Past Year



(i) Individuals classified as seriously considering attempting suicide answered "yes" to the question *"During the past 12 months, did you ever seriously consider attempting suicide?"* on RIDOH's YRBS.

Collectively, these findings highlight an urgent need to address escalating suicidality both statewide and nationwide. One's suicide risk is not only influenced by the state of one's mental health — it is also influenced by one's access to lethal means. It is thus imperative for state and local governments (as well as communities and individuals) to view suicide as a multidimensional public health issue and to collaborate to leverage resources in order to confront suicidality in a meaningful way.

[14] Suicide. (Jan. 2021). *National Institute of Mental Health*. https://www.nimh.nih.gov/health/statistics/suicide

2

UTILIZATION OF MENTAL HEALTH SERVICES

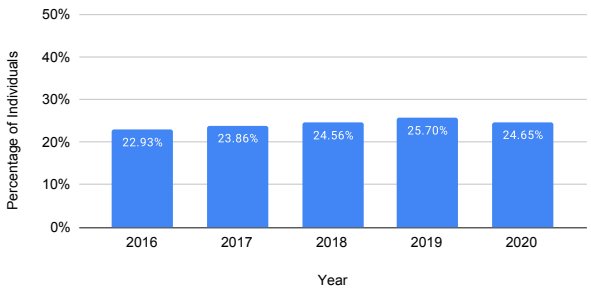
Accurately quantifying the number and characteristics of individuals *experiencing* mental illness in a given year is technically demanding, as it necessitates careful use of survey techniques and statistical estimation methods. Thus, it is important to consider a strong, yet more accessible, barometer of this metric: patterns of *care utilization*. In this section, we attempt to capture the broad spectrum of what care looks like for mental illness, exploring both *where* individuals in Rhode Island are accessing care as well as *why* individuals in Rhode Island are accessing care.

There is little publicly available information about such patterns, so to construct this section we relied largely upon data drawn from the Rhode Island All-Payer Claims Database (RI APCD). For a comprehensive overview of who comprises the RI APCD, see *Appendix C*. Importantly, there are intrinsic limitations to the use of the RI APCD that are necessary to consider when interpreting the data presented here. Readers are encouraged to refer to this report's "Limitations" section for more details.

Care for Any Mental Illness

According to diagnostic codes listed on insurance claims, an annual average of nearly one in four (24.34%) individuals in the RI APCD accessed care related to any mental illness (AMI) between 2016 and 2020 (**Fig. 2.1**). In this same time frame, adults have accessed AMI-related care reliably more than children aged 0-17 (**Fig. 2.2**). A difference in care utilization is also seen among genders: in 2020, females accessed care related to AMI at a rate nearly 47% greater than that of males, reflecting a disparity that has persisted for each of the past five years (**Fig. 2.3**). In 2020, 29.87% of all females in the RI APCD accessed care related to AMI, compared to 20.38% of all males.

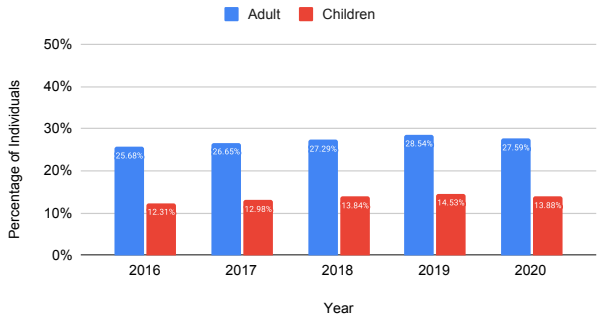
Figure 2.1: Percentage of Individuals in RI APCD Accessing Care Related to AMI



(**i**) Any mental illness (AMI) refers to any diagnosable mental, behavioral, and emotional disorder as defined by the World Health Organization's Tenth Revision to the International Classification of Diseases (ICD-10), excluding developmental, elimination, and substance use disorders and disorders caused by known physiological conditions. These disorders correspond to ICD-10 codes from F200 to F99, excluding codes starting with F55, F7, F8, F90, F95, and individual codes F980, F981, F984, F985.

(**ii**) Individuals considered as "accessing care related to AMI" in a given year had an AMI-related ICD-10 code on an insurance claim corresponding to a visit at one of the six following settings: (1) general outpatient, (2) intensive outpatient program (IOP), (3) emergency room, (4) partial hospitalization program (PHP), (5) residential program, and (6) inpatient.

Figure 2.2: Percentage of Individuals by Age in RI APCD Accessing Care Related to AMI by Age



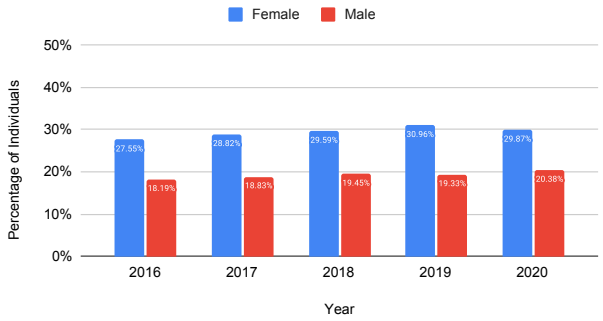
(**i**) Refer to Fig. 2.1 for definition of AMI and "accessing care related to AMI."

(**ii**) An individual may be counted as both a child and adult within the same calendar year if claims are filed before and after one's 18th birthday.

Care for Any Mental Illness by Level

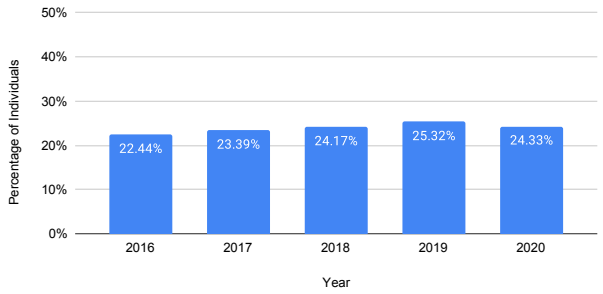
According to data drawn from the RI APCD, between 2016 and 2020, care related to AMI most frequently occurred at the general outpatient level (**Fig. 2.4**). In this span of time, an average of 23.93% of

Figure 2.3: Percentage of Individuals in RI APCD Accessing Care Related to AMI by Gender



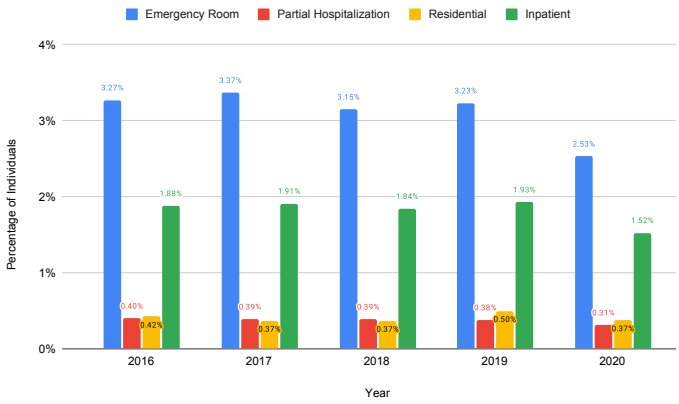
(i) Refer to Fig. 2.1 for definition of AMI and "accessing care related to AMI."

Figure 2.4: Percentage of Individuals in RI APCD Accessing Care Related to AMI at General Outpatient Settings



(i) Refer to Fig. 2.1 for definition of AMI and "accessing care related to AMI."

Figure 2.5: Percentage of Individuals in RI APCD Accessing Care Related to AMI at Non-General Outpatient Settings



(i) Refer to Fig. 2.1 for definition of AMI and "accessing care related to AMI."

individuals in the RI APCD accessed AMI-related care in a general outpatient setting per year. The second-most frequently accessed setting for AMI-related care was the emergency room; between 2016 and 2020, an average of 3.11% of RI APCD individuals accessed AMI-related care in the emergency room per year.

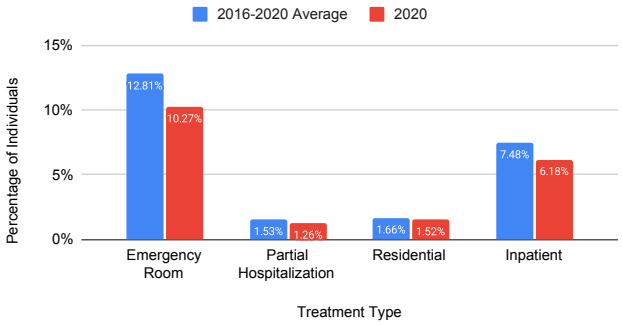
Although emergency room utilization related to AMI was significantly less than general outpatient, it predominated over inpatient care, partial hospitalization programs (PHP), and intensive outpatient programs (IOP). This is true among all individuals in the RI APCD and among individuals accessing AMI-related care in a given year (**Fig. 2.5, 2.6**). It is interesting to note that within this latter subpopulation, IOPs, PHPs, and residential programs are not being utilized nearly as much as the emergency room and inpatient care (**Fig 2.6**). Specifically, between 2016 and 2020, an average of approximately 423 individuals in the RI APCD accessed AMI-related care at IOPs annually, while an average of 3,211 and 3,487 accessed AMI-related care at PHPs and residential programs, respectively (**Fig. 2.7, 2.8, 2.9**). This is compared to the substantially greater AMI-related utilization of inpatient care and emergency rooms, with 2016-2020 averages of 15,674 individuals and 26,845 individuals, respectively. It is interesting to note that for IOPs, PHPs, residential programs, and inpatient services, the ranking of care utilization seems to be directly correlated with the hierarchy of care intensity (that is, more intense levels of care are more heavily utilized).

Interestingly, utilization of all six levels of care fell below their 2016-2020 average levels in 2020 (**Fig. 2.4, 2.5**). Specifically, according to data drawn from the RI APCD, the total number of emergency room admissions related to AMI averaged 79,060 annually between 2016 and 2019, but plummeted to 53,916 in 2020 (**Fig. 2.10**). This likely underscores the impact of the COVID-19 pandemic on care-seeking behaviors. For example, it is unlikely that this 37.8% decrease in emergency room admissions is attributable to any lowering in rates of mental illness — in fact, ample research has demonstrated that reported experiences of mental illness have risen dramatically during the pandemic.[1]

Lastly, for a more nuanced understanding of care utilization related to AMI, it is important to consider *readmission* rates in addition to overall usage. According to data drawn from the RI APCD, an average of 55.43% of individuals accessing care related to AMI at the emergency room between 2016 and 2020 had been discharged from the emergency room for AMI-related care less than a year prior (**Fig. 2.11**). This startlingly high rate of readmission emphasizes the crucial importance of preventing initial admission.

[1] Panchal, N. et al. (Feb. 2021). The Implications of COVID-19 for Mental Health and Substance Abuse. *Kaiser Family Foundation*. https://www.kff.org/coronavirus-covid-19/issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use/

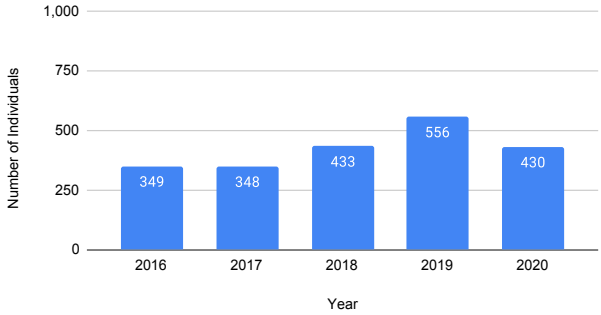
Figure 2.6: Distribution of Individuals in RI APCD Accessing Care Related to AMI at Non-General Outpatient Settings by Level of Care



(i) Refer to Fig. 2.1 for definition of AMI and "accessing care related to AMI."

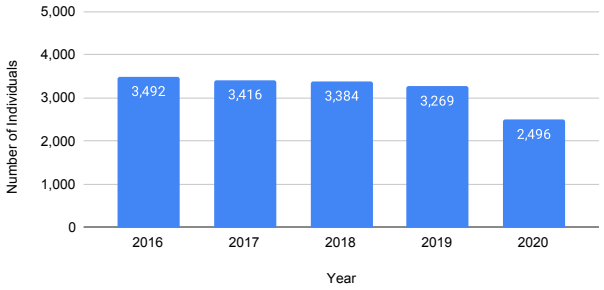
(ii) See *Appendix B* for more detail on average calculation.

Figure 2.7: Number of Individuals in RI APCD Accessing Care Related to AMI at Intensive Outpatient Programs



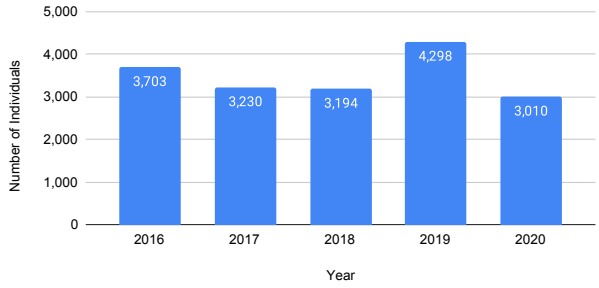
(i) Refer to Fig. 2.1 for definition of AMI and "accessing care related to AMI."

Figure 2.8: Number of Individuals in RI APCD Accessing Care Related to AMI at Partial Hospitalization Programs



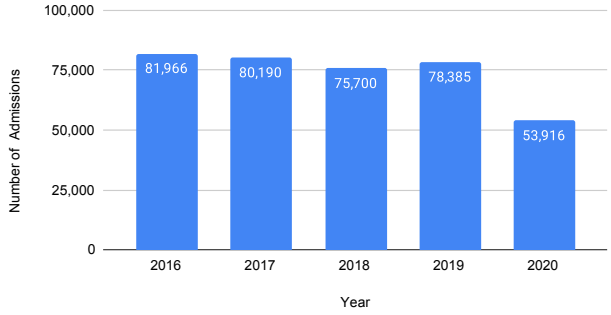
(i) Refer to Fig. 2.1 for definition of AMI and "accessing care related to AMI."

Figure 2.9: Number of Individuals in RI APCD Accessing Care Related to AMI at Residential Programs



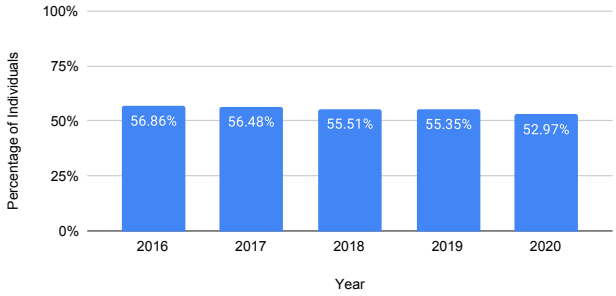
(i) Refer to Fig. 2.1 for definition of AMI and "accessing care related to AMI."

Figure 2.10: Total Emergency Room Admissions Related to AMI



(i) Admissions considered as being related to AMI are admissions in which the corresponding insurance claim contained an AMI-related ICD-10 code (refer to Fig. 2.1).

Figure 2.11: Percentage of Individuals in RI APCD Readmitted to the Emergency Room for Care Related to AMI



(i) Metric describes the percentage of individuals with an AMI-related ICD-10 code (refer to Fig 2.1) on an insurance claim for emergency room care who, less than a year prior, had been discharged from the emergency room with an AMI-related ICD-10 code on the claim.

Care by Condition

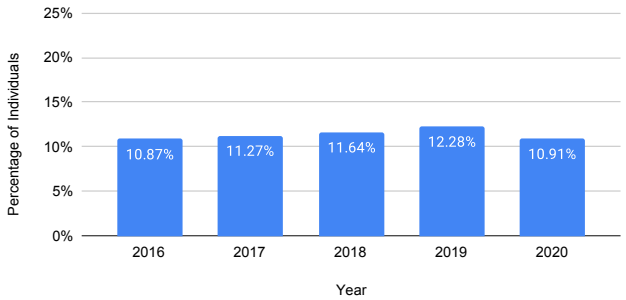
In addition to elucidating *where* individuals access care with a diagnosis of AMI on their claims, the RI APCD can be used to investigate *why* individuals access this care by exploring which specific AMI-related diagnostic codes are listed on RI APCD insurance claims.

Based on the number of individuals in the RI APCD with a diagnostic code indicative of depression on an insurance claim, an average of 11.39% of RI APCD individuals per year accessed care related to depression between 2016 and 2020. (**Fig. 2.12**). Depression is notable for its associated reduction in quality of life, the magnitude of which has been compared to that which is observed among physically ill patients.[2] The public health implications of depression are considerable, as individuals experiencing depression are more likely to be hospitalized and commit suicide.[3]

[2] Pyne, J. M., Patterson, T. L., Kaplan, R. M., Gillin, J. C., Koch, W. L., & Grant, I. (1997). Assessment of the quality of life of patients with major depression. *Psychiatric Services*, 48(2), 224–230. https://doi.org/10.1176/ps.48.2.224

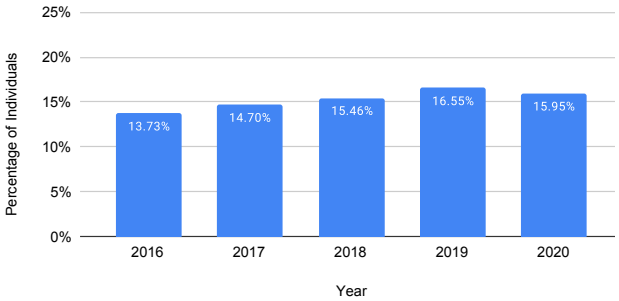
[3] McLaughlin K. A. (2011). The public health impact of major depression: a call for interdisciplinary prevention efforts. *Prevention science : the official journal of the Society for Prevention*

Figure 2.12: Percentage of Individuals in RI APCD Accessing Care Related to Depression



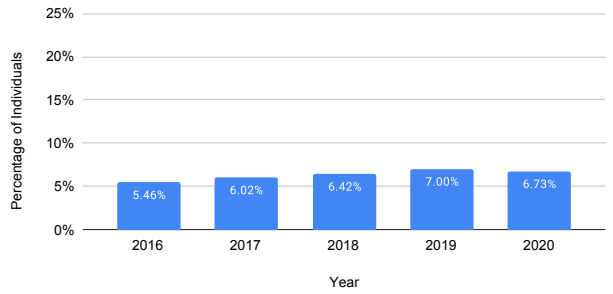
(i) Metric describes the percentage of individuals with an insurance claim containing a diagnostic code related to depression. This corresponds to any ICD-10 code starting with F32 or F33.

Figure 2.13: Percentage of Individuals in RI APCD Accessing Care Related to Anxiety Disorders



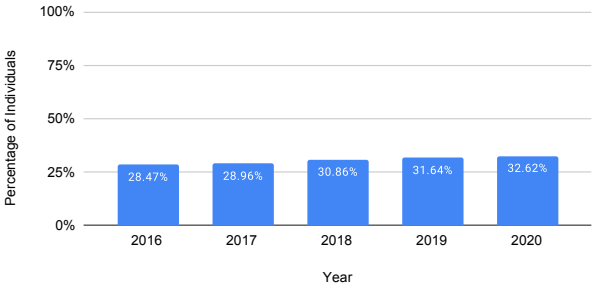
(i) Metric describes the percentage of individuals with an insurance claim containing a diagnostic code related to an anxiety disorder (e.g., generalized anxiety, social anxiety, specific phobias, etc.). This corresponds to any ICD-10 code starting with F40 or F41.

Figure 2.14: Percentage of Individuals in RI APCD Accessing Care Related to Reactions to Severe Stressors and Adjustment Disorders



(i) Metric describes the percentage of individuals with an insurance claim containing a diagnostic code related to reactions to severe stressors or adjustment disorders (i.e., acute stress disorders, post-traumatic stress disorders, and adjustment disorders). This corresponds to any ICD-10 code starting with F43.

Figure 2.15: Percentage of Individuals in RI APCD Accessing Care Related to PTSD Among Those Accessing Care Related to Reactions to



(i) Metric describes the percentage of individuals captured in Fig. 2.14 with an insurance claim containing a diagnostic code related to post-traumatic stress disorder (PTSD). This corresponds to any ICD-10 code starting with F431.

Anxiety disorders — a broad category of mental illness that includes generalized anxiety disorder (GAD), panic disorder, and specific phobias — are different from routine feelings of nervousness or angst due to their heightened severity and duration.[4] Epidemiological research suggests that among psychiatric conditions, anxiety disorders have the highest lifetime prevalence rate, with nearly 30% of individuals experiencing one at some point in time.[5] In keeping with this finding, out of the specific mental health conditions included in this section, individuals in the RI APCD accessed care related to anxiety disorders at the highest rate (**Fig. 2.13**). The average percentage of RI APCD individuals with a claims diagnostic code related to anxiety disorders per year was 15.28% between 2016 and 2020; prior to 2020, it increased in four consecutive years.

Exposure to psychologically distressing, stressful, or traumatic events can result in lasting consequences for an individual, ranging in severity from intermittent feelings of helplessness to the development of diagnosable mental health conditions (such as adjustment disorders, acute stress disorder, and post-traumatic stress disorder).[6] Between 2016 and 2020, an average of 6.32% of individuals in the RI APCD per year accessed care related to mental health conditions classified as "reactions to severe stressors and adjustment disorders" (**Fig. 2.14**). Importantly, according to the data drawn from this repository, 30.51% of individuals that accessed such care had a diagnostic code on an insurance claim that specifically corresponded to post-traumatic stress disorder (PTSD) (**Fig. 2.15**). In each year since 2016, this proportion has increased annually, rising from 28.47% to 32.62% in that span. The magnitude of this fraction — nearly one in three as of 2020 — is significant due to the severity of PTSD: those living with the disorder often experience

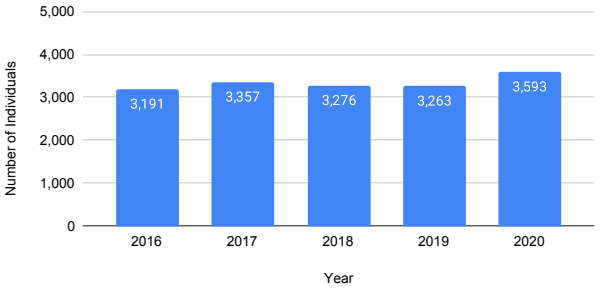
Research, 12(4), 361–371. https://doi.org/10.1007/s11121-011-0231-8

[4] Anxiety Disorders. (2021). *National Institute of Mental Health (NIMH)*. https://www.nimh.nih.gov/health/topics/anxiety-disorders/

[5] Olatunji, B. O., Cisler, J. M., & Tolin, D. F. (2007). Quality of life in the anxiety disorders: a meta-analytic review. *Clinical psychology review*, 27(5), 572–581. https://doi.org/10.1016/j.cpr.2007.01.015

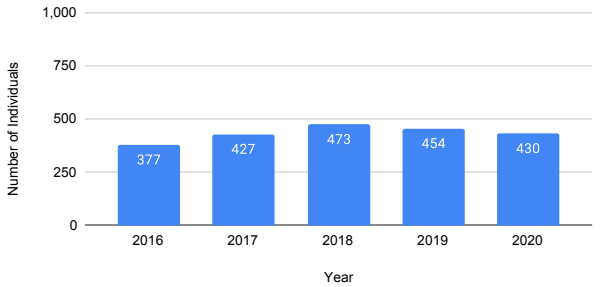
[6] Kleber R. J. (2019). Trauma and Public Mental Health: A Focused Review. *Frontiers in psychiatry*, 10, 451. https://doi.org/10.3389/fpsyt.2019.00451

Figure 2.16: Number of Individuals in RI APCD Accessing Care Related to Eating Disorders



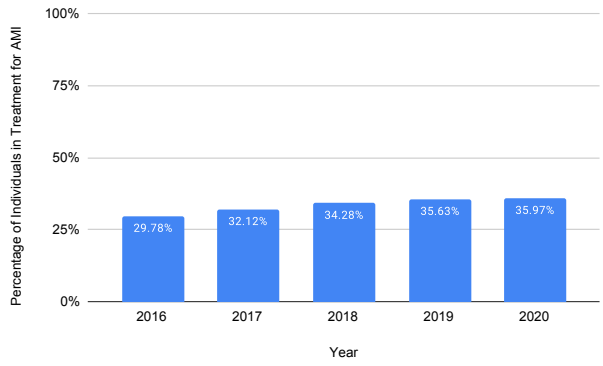
(**i**) Metric describes the percentage of individuals with an insurance claim containing a diagnostic code related to an eating disorder (e.g., anorexia nervosa, binge eating disorder, etc.). This corresponds to any ICD-10 code starting with F50.

Figure 2.17: Number of Individuals in RI APCD Accessing Care Related to Self-Harm



(**i**) Metric describes the percentage of individuals with an insurance claim containing a diagnostic code related to self-harm. This corresponds to any ICD-10 code starting with X7 or X8.

Figure 2.18: Percentage of Individuals in RI APCD Accessing Care Related to AMI who Accessed Care Related to More than One Mental Illness in a Given Year



(**i**) Refer to Fig. 2.1 for definition of AMI and "accessing care related to AMI."

(ii) Metric describes the percentage of individuals captured in Fig. 2.1 with more than one AMI-related diagnostic code on their insurance claims in a given year.

flashbacks, nightmares, and extreme anxiety that impair day-to-day functioning.[7]

Eating disorders, including anorexia nervosa (AN), bulimia nervosa (BN), and binge eating disorder (BED), are marked by severe disturbances in eating behaviors and an overwhelming preoccupation with food and body shape.[8] In particular, AN has the highest mortality rate of any mental illness, with deaths most commonly attributed to medical consequences of prolonged starvation such as organ failure.[9] Notably, unlike the other mental health conditions included in this section, the number of individuals in the RI APCD accessing care related to eating disorders increased in 2020 (**Fig. 2.16**). The 3,600 individuals in the RI APCD who had a diagnostic code indicative of an eating disorder on a 2020 insurance claim was the highest value for this metric between 2016 and 2020, over 250 individuals greater than the second-largest reported value in 2017. While factors motivating this recent increase cannot be implied by these data alone, numerous studies have reported upticks in the prevalence of eating disorders during the COVID-19 pandemic.[10,11,12]

For this report, data were also drawn from the APCD pertaining to the percentage of individuals accessing care related to self-harm. Self-harm can include both injuries motivated by suicidal behavior as well as non-suicidal self-injury (NSSI), the latter of which is associated with heightened suicidality among adolescents as well as an increased lifetime risk of suicide.[13,14] Between 2016 and 2020, an average of approximately 432 individuals in the RI APCD per year had a diagnostic code related to self-harm on an insurance claim (**Fig. 2.17**). It is important to note that this seemingly low number likely predominantly encompasses instances in which the self-harm was ostensibly severe or concerning enough to warrant medical attention, meaning that overall prevalence of self-harm is likely much greater. In fact, a 2018 meta-analysis encompassing adolescents from 41 countries estimated that the overall lifetime

[7] Post-traumatic stress disorder (PTSD). (2021). *Mayo Clinic*. https://www.mayoclinic.org/diseases-conditions/post-traumatic-stress-disorder/symptoms-causes/syc-20355967
[8] Eating Disorders. (2021). *National Alliance on Mental Illness (NAMI)*. https://www.nami.org/About-Mental-Illness/Mental-Health-Conditions/Eating-Disorders
[9] Arcelus J, Mitchell AJ, Wales J, Nielsen S. Mortality Rates in Patients With Anorexia Nervosa and Other Eating Disorders: A Meta-analysis of 36 Studies. *Arch Gen Psychiatry*. 2011;68(7):724–731. doi:10.1001/archgenpsychiatry.2011.74
[10] Phillipou, A., Meyer, D., Neill, E., Tan, E. J., Toh, W. L., Van Rheenen, T. E., & Rossell, S. L. (2020). Eating and exercise behaviors in eating disorders and the general population during the COVID-19 pandemic in Australia: Initial results from the COLLATE project. *The International journal of eating disorders*, 53(7), 1158–1165. https://doi.org/10.1002/eat.23317
[11] Shah, M., Sachdeva, M., & Johnston, H. (2020). Eating disorders in the age of COVID-19. *Psychiatry research*, 290, 113122. https://doi.org/10.1016/j.psychres.2020.113122
[12] Touyz, S., Lacey, H. & Hay, P. Eating disorders in the time of COVID-19. *J Eat Disord 8*, 19 (2020). https://doi.org/10.1186/s40337-020-00295-3
[13] Groschwitz, R. C., Kaess, M., Fischer, G., Ameis, N., Schulze, U. M., Brunner, R., Koelch, M., & Plener, P. L. (2015). The association of non-suicidal self-injury and suicidal behavior according to DSM-5 in adolescent psychiatric inpatients. *Psychiatry research*, 228(3), 454–461. https://doi.org/10.1016/j.psychres.2015.06.019
[14] Morgan C, Webb R T, Carr M J, Kontopantelis E, Green J, Chew-Graham C A et al. Incidence, clinical management, and mortality risk following self harm among children and adolescents: cohort study in primary care *BMJ* 2017; 359 :j4351 doi:10.1136/bmj.j4351

prevalence of self-harm was 16.9% in individuals aged 12 to 18 between 1990 and 2015. [15]

Understanding why individuals in the RI APCD with AMI diagnoses access care also involves exploring comorbidity — that is, the likelihood that an individual experiences more than one mental illness. Research has demonstrated that mental illnesses are highly comorbid.[16,17] For example, one study reported that up to 58% of individuals with major depressive disorder (MDD) also have a comorbid anxiety disorder. According to data drawn from the RI APCD between 2016 and 2020, an average of 33.56% of individuals that accessed care related to AMI had diagnostic codes indicative of multiple mental illnesses on their insurance claims in a given year (**Fig. 2.18**). This metric appears to be rising, increasing from 29.78% in 2016 to 35.97% in 2020. These high comorbidity values support the assertion that mental health interventions should not only target specific symptoms of mental illness, but should also consider the underlying risk factors that increase one's overall susceptibility to mental illness in the first place.

[15] Gillies, D., Christou, M. A., Dixon, A. C., Featherston, O. J., Rapti, I., Garcia-Anguita, A., Villasis-Keever, M., Reebye, P., Christou, E., Al Kabir, N., & Christou, P. A. (2018). Prevalence and Characteristics of Self-Harm in Adolescents: Meta-Analyses of Community-Based Studies 1990-2015. *Journal of the American Academy of Child and Adolescent Psychiatry*, 57(10), 733–741. https://doi.org/10.1016/j.jaac.2018.06.018

[16] Plana-Ripoll O, Pedersen CB, Holtz Y, et al. Exploring Comorbidity Within Mental Disorders Among a Danish National Population. *JAMA* Psychiatry. 2019;76(3):259–270 doi:10.1001/jamapsychiatry.2018.3658

[17] Pollack M. H. (2005). Comorbid anxiety and depression. *The Journal of clinical psychiatry, 66 Suppl 8, 22–29*.

3

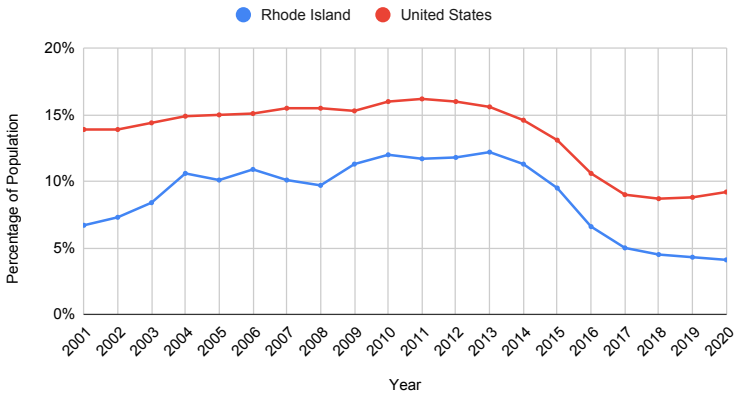
ACCESS BARRIERS TO MENTAL HEALTH SERVICES

The preceding section explored the utilization of mental health services in Rhode Island. However, it is of perhaps equal importance to examine the cases in which behavioral health services are not used — that is, to elucidate potential access barriers to mental health treatment.

In 2020, Mental Health America (MHA) reported that 57.2% of adults with self-reported experiences of mental illness did not receive any treatment.[1] Factors underlying this strikingly high figure can be broadly divided into two categories: *a reluctance to seek* mental health treatment (often motivated by societal, cultural, or familial stigmas) and *an inability to access* mental health treatment. Various research has supported this latter influence in particular: in 2020, MHA found that 22.3% of adults with any mental illness reported not being able to receive needed mental health treatment.[2] Similarly, a 2018 study conducted jointly by the Cohen Veterans Network and the National Council for Behavioral Health reported that 47% of survey respondents viewed treatment options as limited in the United States.[3]

Critical drivers of an inability to access behavioral health treatment tend to be insurance-related barriers (e.g., narrow networks, high cost, or lack of parity). Indeed, those who are uninsured or underinsured experience the greatest difficulty in accessing behavioral health care, particularly as narrow networks pose a persistent barrier to the promise of the Mental Health Parity and Addictions Equity Act of 2008.[4] Favorably, the uninsured rate in Rhode Island is (and has historically been) among the lowest in the nation and lies far below the national average (**Fig. 3.1**). According to the Kaiser Family Foundation, only 4.3% of Rhode Island's population was uninsured in 2019, compared to the national average of 9.2%.[5] As expected, the uninsured rate in Rhode Island rose to its highest level in over a decade in the midst of the Great Recession of the 2000s and began to decline rapidly and consistently following the expansion of Medicaid in 2014.

Figure 3.1: Percentage of Population That is Uninsured



(**i**) Data from United Health Foundation's "America's Health Rankings."

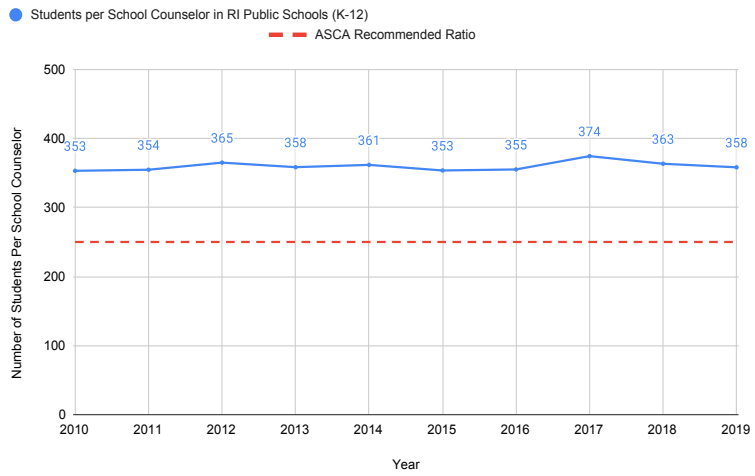
Another factor that hinders one's ability to engage with behavioral health services is a lack of available clinicians. Shortages in the supply of behavioral health care providers are glaringly apparent at the national level: in 2016, over half of the counties in the United States did not have a single psychiatrist.[6] Furthermore, suboptimal reimbursement rates often dissuade mental health professionals from participating in insurance networks. In 2019, the risk management firm Milliman LLC reported that reimbursement rates for primary care office visits in Rhode Island are 23.7% higher than those for behavioral health.[7]

Given the prevalence of mental health crises in adolescents, one important clinician type to consider

[1] Reinert, M., Nguyen, T., and Danielle Fritze. (2020). The State of Mental Health in America: 2020. *Mental Health America*. https://mhanational.org/sites/default/files/State%20of%20Mental%20Health%20in%20America%20-%202020_0.pdf
[2] Ibid.
[3] America's Mental Health 2018: Attitudes and Access to Care. (2018). *Cohen Veterans Network*. https://www.cohenveteransnetwork.org/americasmentalhealth/
[4] Diehl, S., Honberg, R., Kimball, A., Douglas, D. (2017). The Doctor is Out: Continuing Disparities in Access to Mental and Physical Health Care. *National Alliance on Mental Illness (NAMI)*. https://www.nami.org/Support-Education/Publications-Reports/Public-Policy-Reports/The-Doctor-is-Out/DoctorIsOut
[5] Health Insurance Coverage of the Total Population. (2019). *Kaiser Family Foundation (KFF)*. https://www.kff.org/other/state-indicator/total-population/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Uninsured%22,%22sort%22:%22desc%22%7D
[6] Beck, A.J., Page, C., Buche, J., Rittman, D., Gaiser, M. (Dec. 2018). Estimating the Distribution of the U.S. Psychiatric Subspecialist Workforce. *University of Michigan School of Public Health Behavioral Health Workforce Research Center*. https://behavioralhealthworkforce.org/wp-content/uploads/2019/02/Y3-FA2-P2-Psych-Sub_Full-Report-FINAL2.19.2019.pdf
[7] Melek, S., Davenport, S., Gray, T.J. (Nov. 2019). Addiction and mental health vs. physical health: Widening disparities in network use and provider reimbursement. *Milliman*.

is the school mental health counselor. The American School Counselor Association (ASCA) recommends that schools maintain a ratio of no more than 250 students to every school counselor.[8] However, for the past decade, the number of students per school counselor in Rhode Island has substantially exceeded the ASCA benchmark, ranging from 353 in 2010 to 374 in 2017 (**Fig. 3.2**).

Figure 3.2: Students per School Counselor in Rhode Island Public Schools

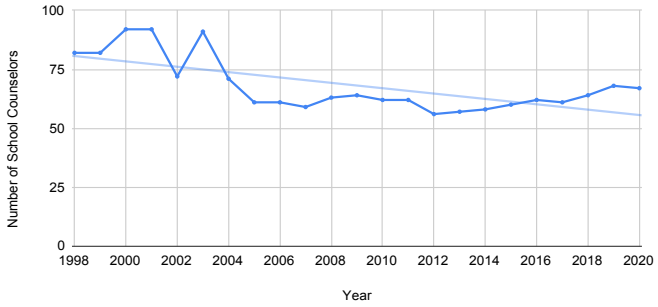


(**i**) Ratio was calculated using school counselor data provided by the Rhode Island Department of Education (RIDE) and student population data from Rhode Island Kids Count.

(**ii**) According to RIDE, school counselors are defined as psychologists, therapists, or guidance counselors.

(**iii**) School districts included in our calculations can be found in *Appendix D*.

Figure 3.3: School Counselors in Providence Public School District



(**i**) Data provided by RIDE.

(**ii**) Refer to Fig. 3.2 for definition of school counselors.

As an illustrative example, we will examine the number of school counselors (defined as psychologists, therapists, or guidance counselors) in the Providence Public School District (PPSD) over time, provided by the Rhode Island Department of Education (RIDE) (**Fig. 3.3**). The PPSD is the largest school district in Rhode Island, encompassing 41 schools and serving approximately 24,000 students.[9] While the number of counselors in the district fell during the early 2000s, it has steadily been on the rise and was most recently reported at 67 in 2020, corresponding to a student-to-school-counselor ratio of 358 to 1. Rhode Island and the PPSD are not alone in these trends: the national average ratio is 464 to 1, a particularly concerning figure given that adherence to the ASCA recommended ratio has been demonstrated to yield better academic outcomes, especially in schools with high levels of poverty.[7] Moreover, this shortage of school counselors is particularly harmful to students of color and students from low-income families, who are more likely to report having been meaningfully influenced by their school counselors.[7] Taken together, it is reasonable to suggest that the maintenance of low student-to-counselor ratios should stand as a top priority for school districts in Rhode Island and nationwide.

Even if individuals successfully find a behavioral healthcare provider or facility whose services are covered under their insurance plan, wait times are often extremely long. The Rhode Island Behavioral Health Open Beds (BHOB) system is maintained jointly by the Rhode Island Department of Behavioral Healthcare, Developmental Disabilities and Hospitals (BHDDH) and the Rhode Island Quality Institute (RIQI) to publicly document information about bed availability for mental health and substance use disorder services.[10] According to the BHOB system, between May and December of 2020, an average of nearly 24 individuals per day found themselves waiting at an emergency department for inpatient behavioral health services. Month-to-month, this figure fluctuated from an average of 19 people per day during June 2020 to 29 people per day during August 2020 (**Fig. 3.4**). Notably, many of the wait times for individuals in emergency departments are extremely long. An average of 16 people per day between May 2020 and

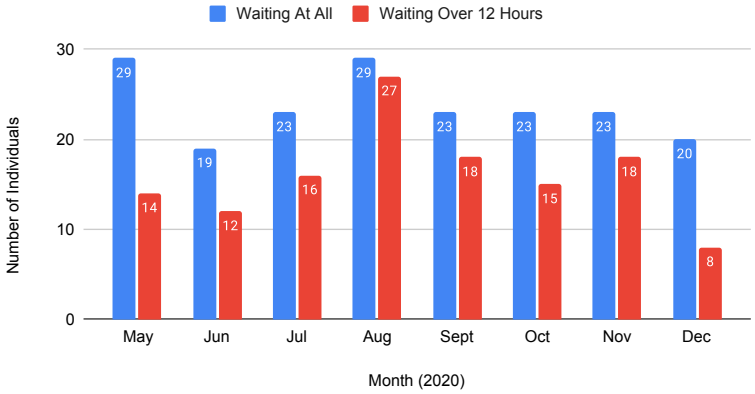
[8] School districts included in our calculations can be found in the Appendix. Enrollment in Rhode Island public school districts was drawn from Rhode Island Kids Count, and the number of school counselors per year was provided by RIDE.

[9] About Us: General District Information. (2021). *Providence Public Schools*. https://www.providenceschools.org/domain/49

[10] About the RI Behavioral Health Open Beds (BHOB) System. (2021). *Rhode Island Department of Behavioral Health, Developmental Disabilities and Hospitals*. https://www.ribhopenbeds.org/about

December 2020 waited more than 12 hours for an inpatient bed in a behavioral health services facility. This average fluctuated from an average of 8 people per day during December 2020 to 27 people per day during August 2020.

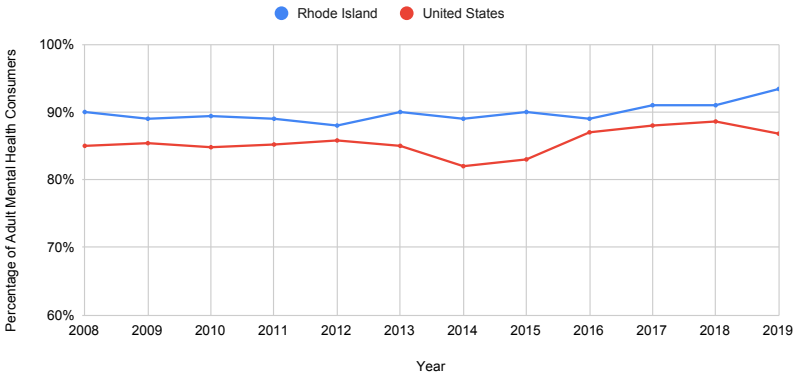
Figure 3.4: Average Number of Individuals Waiting at the Emergency Department per Day for Inpatient Behavioral Health Services



(**i**) Data provided by the Rhode Island Department of Behavioral Healthcare, Developmental Disabilities and Hospitals (BHDDH), taken from the Behavioral Health Open Beds (BHOB) System.

(**ii**) Emergency departments were included in average only if BHDDH-licensed.

Figure 3.5: Percentage of Adult Mental Health Consumers "Reporting Positively About Access"



(**i**) Data reported by fiscal year.

(**ii**) Data from the Mental Health Statistical Improvement Program (MHSIP) survey, conducted by BHDDH using the BHDDH Outcome Evaluation Instrument. Survey is only administered to enrollees of integrated home health (IHH) and assertive community treatment (ACT) programs, meaning its respondents largely have diagnoses of serious and persistent mental illness (SPMI). Results of the survey are found in the Uniform Reporting System (URS) reports, published annually by the Substance Abuse and Mental Health Services Administration (SAMHSA).

(**iii**) Individuals classified as reporting positively about access had "positive responses" to statements in the MHSIP survey regarding service accessibility. Such survey items include: "I was able to get all the services I thought I needed," "Services were available at times that were good for me," and "The location of services was convenient." More information regarding MSHIP items and coding procedures can be found in SAMHSA Uniform Reporting System FY Table Reporting Instructions, available publicly on the website of NRI (a not-for-profit organization that processes and reviews data on behavioral health delivery systems).

BHDDH also provided a small sample of average daily emergency department waiting times from January and February 2021. While no broad conclusions can be reliably drawn from 59 days' worth of data, it is worth noting the extreme and unpredictable volatility of wait times day to day. For example, in January 2021, the daily average number of individuals waiting at all for an inpatient behavioral health bed varied from 0 to 43, and the daily average number of individuals waiting for more than 12 hours varied from 0 to 20.5.

Despite the potential challenges of these exceedingly high wait times, Rhode Islanders tend to hold positive perceptions regarding access to mental health treatment. For the past decade, according to the Uniform Reporting System (URS) reports, Rhode Island has consistently risen above the national average for percentage of individuals reporting positively about access to care. In 2019, 93.4% of Rhode Island adult survey respondents had a positive perception of care access, exceeding the nationwide average of 86.8% (**Fig 3.5**).

Lastly, it is important to note that robust, state-level data regarding factors that limit behavioral health service utilization are particularly sparse and difficult to locate. This is especially true when it comes to the supply of behavioral health clinicians and the stigma surrounding treatment-seeking. While we hope to more thoroughly explore such metrics in future reports, we believe that the data we have presented highlight the undeniable importance of identifying and quantifying access barriers to the behavioral healthcare system.

4

SUBSTANCE USE DISORDERS

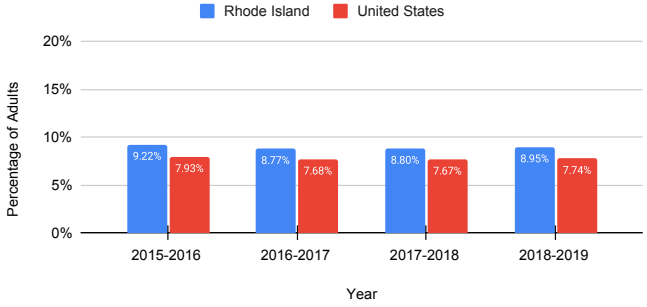
According to the Substance Abuse and Mental Health Services Administration (SAMHSA), a substance use disorder (SUD) describes recurrent use of alcohol and/or drugs that leads to clinically significant impairment, including physical health problems or failure to fulfill responsibilities at work or school.[1] One's likelihood to develop a SUD can be influenced by biological, environmental, and developmental factors alike, such as genetic predisposition, surrounding household environment, and experiences of recurrent trauma.[2] Importantly, SUD are associated with extremely low quality of life, meriting their treatment as a public health priority. In one research study, 59% of subjects that experienced SUD described a "low" baseline quality of life, while 34% described their baseline quality of life as "extremely low."[3]

This section focuses on the prevalence of substance use disorders in Rhode Island and nationwide, explores the groups among which they are most common, and highlights the experience of those with a SUD seeking treatment.

Prevalence of Substance Use Disorders

The National Survey on Drug Use and Health (NSDUH) estimates indicate that SUD are experienced disproportionately in Rhode Island compared to other states. In each NSDUH report since 2015-2016, the estimated percentage of adults experiencing a SUD in the past year in Rhode Island has exceed-ed the national average (**Fig. 4.1**). In the same interval, both the Rhode Island and United States measures have remained fairly stagnant, most recently being estimated at 8.95% and 7.74%, respectively. Rhode Island has also performed unfavorably when it comes to the estimated percentage of individuals aged 12-17 experiencing a SUD in the preceding year, with estimates above those of the national average consistently since 2015-2016 (**Fig. 4.2**). While both Rhode Island and the United States more broadly have seen small decreases in this metric since 2015-2016, only time will tell if this is the beginning of a meaningful down-ward trend.

Figure 4.1: Estimated Percentage of Adults With Substance Use Disorder (SUD) in the Past Year (RI and US)

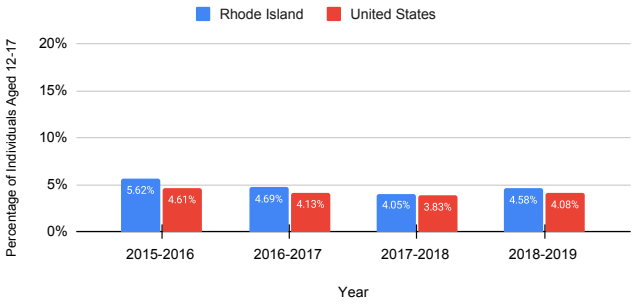


(**i**) Data from the National Survey on Drug Use and Health (NSDUH), conducted annually by the Substance Abuse and Mental Health Services Administration (SAMHSA).

(**ii**) The NSDUH defines substance use disorder (SUD) as "meeting criteria for illicit drug or alcohol dependence or abuse. Dependence or abuse is based on definitions found in the 4th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)."

(**iii**) For more details on NSDUH methodology, see *Appendix A*.

Figure 4.2: Estimated Percentage of Individuals Aged 12-17 with SUD in the Past Year (RI and US)



(**i**) Data from the NSDUH.

(**ii**) Refer to Fig. 4.1 for SUD definition.

(**iii**) For more details on NSDUH methodology, see *Appendix A*.

Elevated prevalence rates in Rhode Island can also be seen among more specific diagnoses of SUD — namely, alcohol use disorders and illicit substance use disorders. It is worth noting that although the estimated percentage of adults with an alcohol use disorder in Rhode Island has exceeded the national

[1] Mental Health and Substance Use Disorders. (2021). *Substance Abuse and Mental Health Services Administration*. https://www.samhsa.gov/find-help/disorders

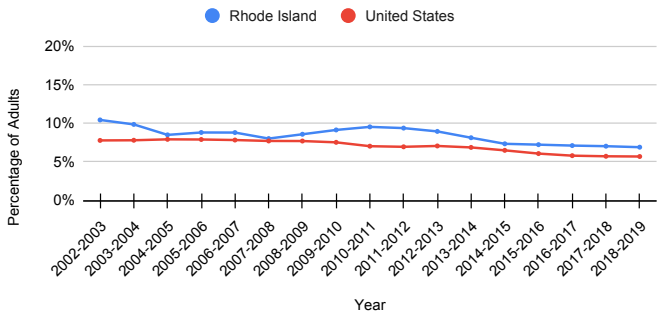
[2] DrugFacts: Understanding Addiction and Drug Use. (2021). *National Institute on Drug Abuse*. https://www.drugabuse.gov/publications/drugfacts/understanding-drug-use-addiction

[3] Pasareanu, A.R., Opsal, A., Vederhus, JK. et al. Quality of life improved following in-patient substance use disorder treatment. Health Qual Life Outcomes 13, 35 (2015). https://doi.org/10.1186/s12955-015-0231-7

average in every estimate since 2002-2003, this measure promisingly hit its lowest recorded point in Rhode Island (6.92%) in 2018-2019 (**Fig. 4.3**). Similarly, while the estimated percentage of adults with illicit drug use disorders in Rhode Island substantially exceeded the national average in 2015-2016, the state has made marked improvements. Most recently, this metric was reported at 3.00% in Rhode Island and 2.97% at the national level (**Fig. 4.4**).

Although more data is needed to draw meaningful conclusions regarding the trends for some of the aforementioned SUD-related metrics, the fact that Rhode Island has disproportionately experienced disorders related to substance abuse relative to other states is clear. In each NSDUH report since 2014-2015 (the first report in which all four aforementioned metrics were accurately recorded), Rhode Island has unwaveringly exceeded (or, rarely, matched) the estimated national average for such metrics — suggesting an urgent need to make confronting SUD a state-specific priority.

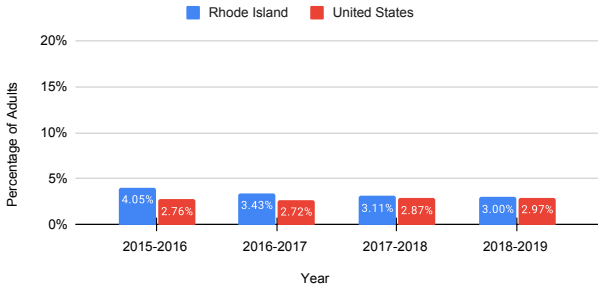
Figure 4.3: Estimated Percentage of Adults with Alcohol Use Disorder in the Past Year (RI and US)



(**i**) The NSDUH defines alcohol use disorder as "meeting criteria for alcohol dependence or abuse. Dependence or abuse is based on definitions found in the 4th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)."

(**ii**) For more details on NSDUH methodology, see *Appendix A*.

Figure 4.4: Estimated Percentage of Adults with Illicit Drug Use Disorder in the Past Year (RI and US)



(**i**) The NSDUH defines illicit drug use disorder as "meeting criteria for illicit drug dependence or abuse. Dependence or abuse is based on definitions found in the 4th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)."

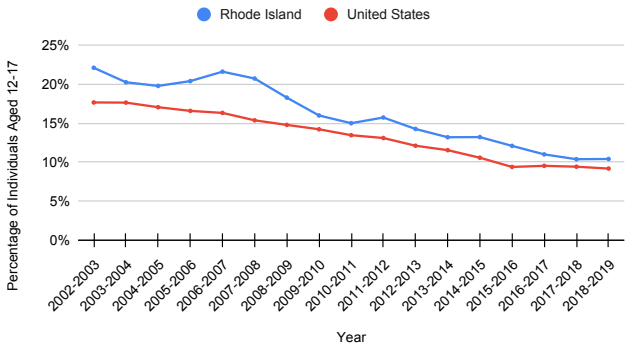
(**ii**) According to the NSDUH, illicit drug use includes "the misuse of prescription psychotherapeutics or the use of marijuana, cocaine (including crack), heroin, hallucinogens, inhalants, or methamphetamine. Misuse of prescription psychotherapeutics is defined as use in any way not directed by a doctor, including use without a prescription of one's own; use in greater amounts, more often, or longer than told; or use in any other way not directed by a doctor. Prescription psychotherapeutics do not include over-the-counter drugs."

Prevalence of Substance Use

Interestingly, the pattern regarding Rhode Island's comparatively elevated SUD prevalence rates extends more broadly to Rhode Island's general use of substances. For example, in every NSDUH report dating back to 2002-2003, the percentage of individuals aged 12-17 that had used alcohol in the past month in Rhode Island exceeded the national average (**Fig. 4.5**). However, this measure has promisingly demonstrated substantial improvement at both the state and national level over the past several decades. In Rhode Island, the percentage more than halved from 22.12% in 2002-2003 to 10.42% in 2018-2019. Over the same time span, the percentage in the United States has fallen from 17.67% to 9.19%. A similar trend is evident in NSDUH's estimates of binge alcohol use in the past month among individuals aged 12-17 (**Fig. 4.6**). Between 2015-2016 and 2018-2019, an average of 5.72% individuals per year were estimated to have engaged in binge alcohol use in the past month, compared to a nationwide average of 5.04%. Both measures have decreased every year in this span.

In addition to alcohol use, Rhode Island has exceeded the national average in illicit drug use in each of the past four NSDUH reports by substantial margins and has not exhibited signs of improvement (**Fig. 4.7**). In 2018-2019, an estimated 17.98% of adults in Rhode Island had used illicit drugs in the past month, compared to 12.73% nationwide. Importantly, however, the concerning magnitude of this gap is not true for every type of illicit drug; the estimated percentage of adults that have engaged in non-medical use of pain relievers in the past year has declined modestly in Rhode Island, and in fact stood below the national average in 2018-2019 (3.46% compared to 3.69%) (**Fig. 4.8**).

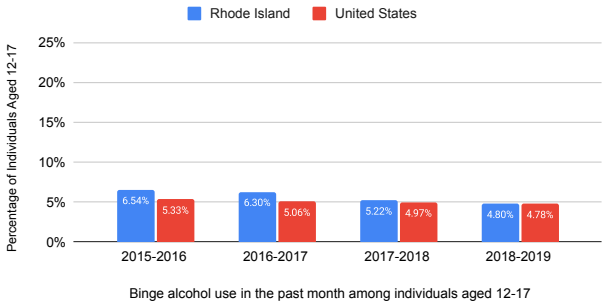
Figure 4.5: Estimated Percentage of Individuals Aged 12-17 Using Alcohol in the Past Month



(**i**) Data from the NSDUH.

(**ii**) For more details on NSDUH methodology, see *Appendix A*.

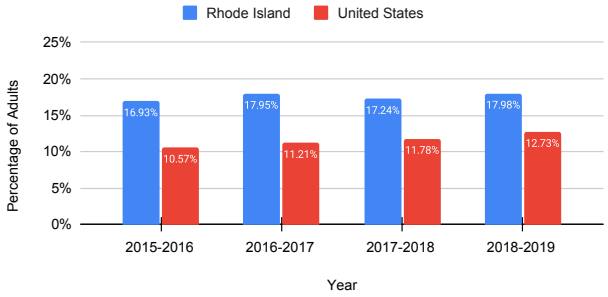
Figure 4.6: Estimated Percentage of Individuals Aged 12-17 Engaging in Binge Alcohol Use in The Past Month



(**i**) The NSDUH defines binge alcohol use as "drinking five or more drinks (for males) or four or more drinks (for females) on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days."

(**ii**) For more details on NSDUH methodology, see *Appendix A*.

Figure 4.7: Estimated Percentage of Adults Using Illicit Drugs in the Past Month

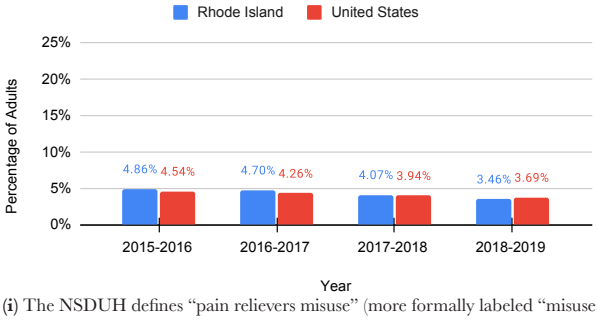


(**i**) Data from the NSDUH.

(**ii**) Refer to Fig. 4.4 for definition of illicit drug use.

(**iii**) For more details on NSDUH methodology, see *Appendix A*.

Figure 4.8: Estimated Percentage of Adults Engaging in Pain Reliever Misuse in Past Year

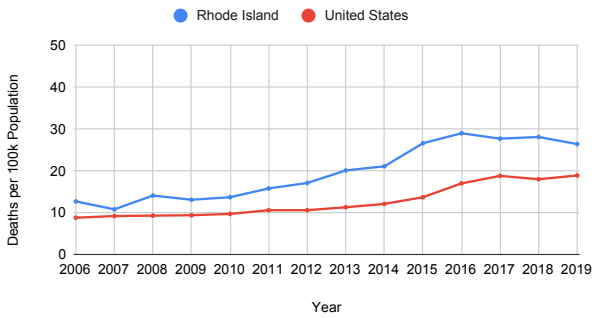


(**i**) The NSDUH defines "pain relievers misuse" (more formally labeled "misuse of prescription psychotherapeutics") as "use in any way not directed by a doctor, including use without a prescription of one's own; use in greater amounts, more often, or longer than told; or use in any other way not directed by a doctor. Prescription psychotherapeutics do not include over-the-counter drugs."

(**ii**) For more details on NSDUH methodology, see *Appendix A*.

Overall, the fact that unfavorable performance relative to the national average can be seen in both Rhode Island SUD-related metrics and Rhode Island drug and alcohol use-related metrics (the latter of which does not necessarily imply disordered use of such substances) suggests an intriguing correlation between the number of individuals who develop SUD and the number of individuals who consume substances in general. Thus, when crafting effective prevention and treatment of SUD, there is a compelling case for legislators and community organizations to not only confront disordered instances of alcohol and illicit drug use, but also their use at a broad level.

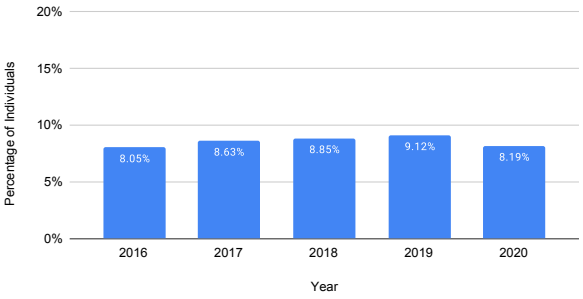
Figure 4.9: Deaths by Unintentional Drug Poisoning Per 100,000 Population



(**i**) Data from the Center of Disease (CDC) WONDER database.

Developing such interventions for both non-disordered and potentially disordered substance use is critical due to their far-reaching correlates and consequences. Perhaps most pressingly, a troubling trend both in Rhode Island and nationwide is the consistent increase in the frequency of deaths by unintentional drug poisoning. According to the Centers for Disease Control and Prevention (CDC), the rate of deaths by unintentional drug poisoning per 100,000 population in Rhode Island more than doubled between 2006 and 2019, rising from 12.7 to 26.4 (**Fig. 4.9**). In this same span, the United States average rose from 8.8 to 18.9 deaths per 100,000 population. When the rate in Rhode Island hit its peak of 29 deaths per 100,000 population in 2016, it was 52%

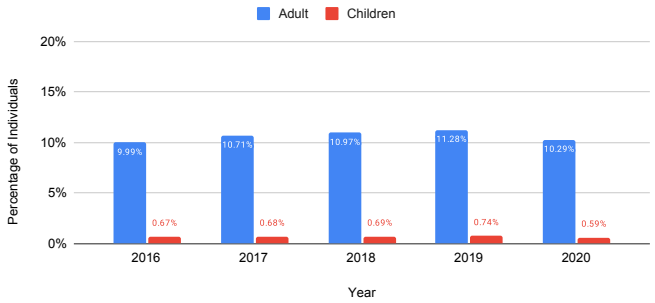
Figure 4.10: Percentage of Individuals in RI APCD Accessing Care Related to SUD



(**i**) Substance use disorder (SUD) refers to any mental and behavioral disorders caused by psychoactive substance use, as defined by the World Health Organization's Tenth Revision to the International Classification of Diseases (ICD-10). These disorders correspond to all ICD-10 codes starting with F1.

(**ii**) Individuals considered as "accessing care related to SUD" in a given year had a SUD-related ICD-10 code on an insurance claim corresponding to a visit at one of the six following settings: (1) general outpatient, (2) intensive outpatient program (IOP), (3) emergency room, (4) partial hospitalization program (PHP), (5) residential program, and (6) inpatient.

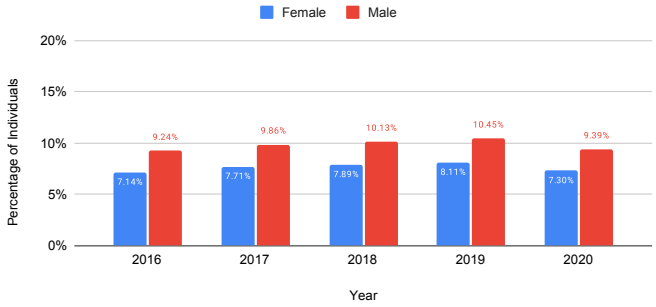
Figure 4.11: Percentage of Individuals in RI APCD Accessing Care Related to SUD by Age



(**i**) Refer to Fig. 4.10 for definition of SUD and "accessing care related to SUD."

(**ii**) An individual may be counted as both a child and adult within the same calendar year if claims are filed before and after one's 18th birthday.

Figure 4.12: Percentage of Individuals in RI APCD Accessing Care Related to SUD by Gender



(**i**) Refer to Fig. 4.10 for definition of SUD and "accessing care related to SUD."

greater than the national average. As Rhode Island and the rest of the United States are faced with steadily increasing rates of lethal outcomes caused by substance use, the human toll of addiction has never been more deserving of attention.

Overview of Treatment Use for Substance Use Disorders

According to the diagnostic codes listed on insurance claims, an average of 8.57% of RI APCD individuals accessed care related to SUD on an annual basis between 2016 and 2020 (**Fig. 4.10**). During this same time span, the average rate of such care utilization was more than 15 times higher among adults than individuals aged 0-17 (**Fig. 4.11**). For each of the reported years, a higher percentage of males in the RI APCD accessed SUD-related care than females (**Fig. 4.12**). Between 2016 and 2020, the percentage of males that accessed SUD-related care per year was 25% higher than the percentage of females on average, a figure that aligns with previously published observations at the national level.[4]

Strikingly, national population surveys have found that approximately 50% of those who experience a SUD during their lives will also experience a co-occuring mental health disorder.[5,6] This finding holds true among the RI APCD population; over the course of the past five years, an average of 53.81% of individuals accessing SUD-related care per year also had a diagnostic code indicative of a non-SUD mental illness on their insurance claims (**Fig. 4.13**). This figure has increased slightly each year since 2016.

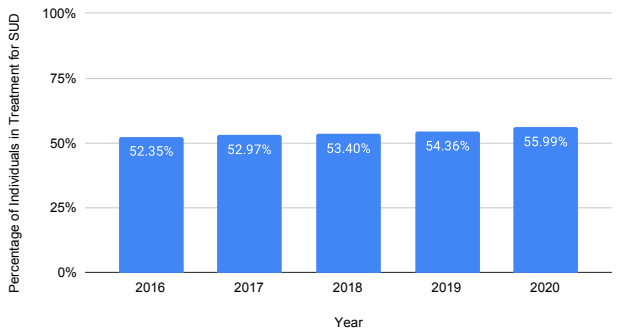
Turning our attention to specific SUD, an annual average of 2.48% of individuals in the RI APCD had diagnostic codes indicative of alcohol-related disorders on their insurance claims between 2016 and 2020, with little variation in this metric from year to year (**Fig. 4.14**). Similarly, an average of 1.71% of individuals in the RI APCD had diagnostic codes corresponding to opioid-related disorders on an annual basis between 2016 and 2020, with no discernible trends in either direction (**Fig. 4.15**).

[4] NIDA. 2021, April 13. Sex and Gender Differences in Substance Use Disorder Treatment. Retrieved from https://www.drugabuse.gov/publications/research-reports/substance-use-in-women/sex-gender-differences-in-substance-use-disorder-treatment on 2021, May 29

[5] Ross S, Peselow E. Co-occurring psychotic and addictive disorders: neurobiology and diagnosis. Clin Neuropharmacol. 2012;35(5):235-243. doi:10.1097/WNF.0b013e318261e193.

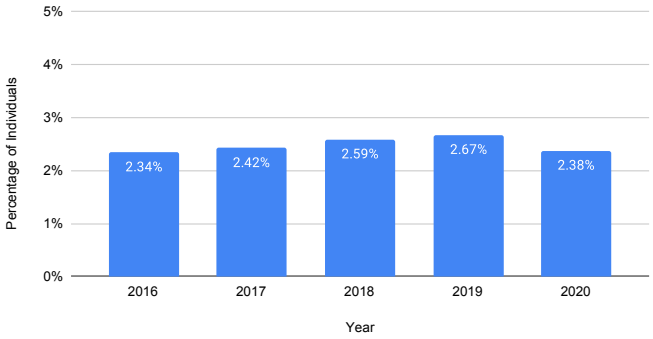
[6] Kelly TM, Daley DC. Integrated Treatment of Substance Use and Psychiatric Disorders. Soc Work Public Health. 2013;28(0):388-406. doi:10.1080/19371918.2013.774673.

Figure 4.13: Percentage of Individuals in RI APCD Accessing Care Related to SUD Also Accessing Care Related to Any Mental Illness



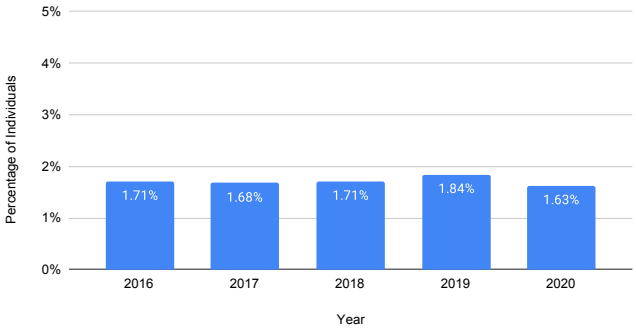
(i) Refer to Fig. 4.10 for definition of SUD and "accessing care related to SUD."
(ii) Metric describes the percentage of individuals captured in Fig. 4.10 who also had an AMI-related diagnostic code (refer to Fig 2.1) on their insurance claims in a given year.

Figure 4.14: Percent of Individuals in RI APCD Accessing Care Related to Alcohol-Related Disorders



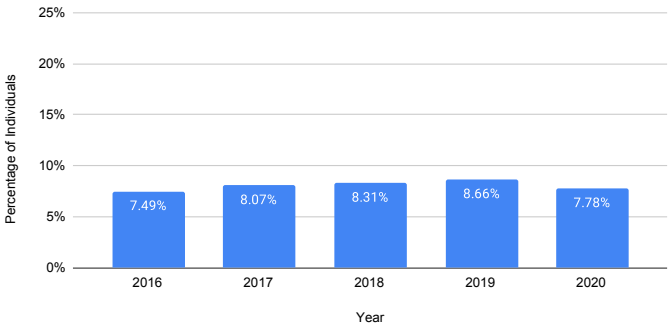
(i) Metric describes the percentage of individuals with an insurance claim containing a diagnostic code indicative of an alcohol-related disorder (i.e., alcohol abuse, dependence, and use disorders). This corresponds to any ICD-10 code starting with F10.

Figure 4.15: Percentage of Individuals in RI APCD Accessing Care Related to Opioid-Related Disorders



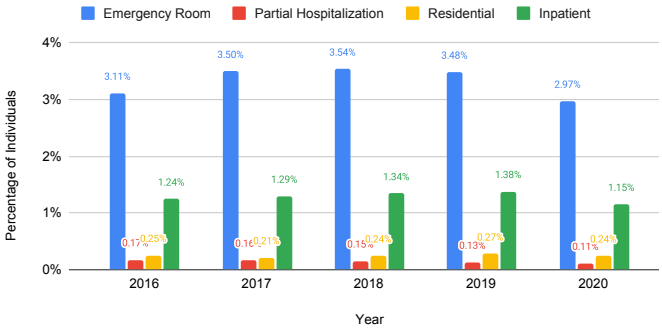
(i) Metric describes the percentage of individuals with an insurance claim containing a diagnostic code indicative of an opioid-related disorder (i.e., opioid abuse, dependence, and use disorders). This corresponds to any ICD-10 code starting with F11.

Figure 4.16: Percentage of Individuals in RI APCD Accessing Care Related to SUD at General Outpatient Settings



(i) Refer to Fig. 4.10 for definition of SUD and "accessing care related to SUD."

Figure 4.17: Percentage of Individuals in RI APCD Accessing Care Related to SUD at Non-General Outpatient Settings



(i) Refer to Fig. 4.10 for definition of SUD and "accessing care related to SUD."

(ii) See *Appendix B* for more detail on average calculation.

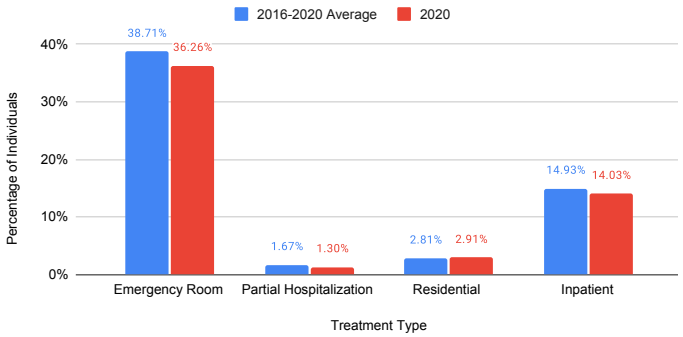
Variations Across Levels of Care

The RI APCD also provides insight as to the intensity of care sought by those accessing care in Rhode Island for SUD. The vast majority of care related to SUD occurred at the general outpatient level, with an average of 8.06% of individuals in the RI APCD accessing SUD-related care at general outpatient settings during this span (**Fig. 4.16**). Among care settings excluding general outpatient, the emergency room was by far the most frequently accessed for SUD-related care, followed by inpatient treatment settings (**Fig. 4.17**).

When juxtaposing these SUD-related care utilization rates with those related to any mental illness (AMI), striking differences emerge. For example, 38.71% of individuals in the RI APCD accessing SUD-related care between 2016 and 2020 did so at the emergency room (**Fig. 4.18**); in this same time period, among RI APCD individuals accessing AMI-related care, only an average of 12.81% did so at the emergency room (**Fig. 2.6**).

We have also included the number of unique individuals who accessed SUD-related care at intensive outpatient programs (IOP) (**Fig. 4.19**), partial hospitalization programs (PHP) (**Fig. 4.20**), and residential programs (**Fig. 4.21**). While the number of individuals accessing IOPs and residential programs has fluctuated sporadically over the past five years, the number of individuals accessing SUD-related care at

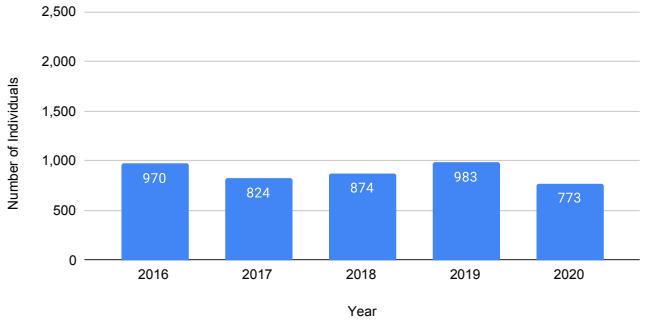
Figure 4.18: Distribution of Individuals in RI APCD Accessing Care Related to SUD at Non-General Outpatient Settings by Level of Care



(**i**) Refer to Fig. 4.10 for definition of SUD and "accessing care related to SUD."

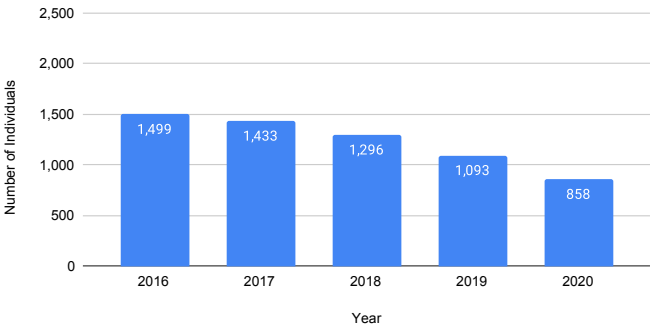
(**ii**) See *Appendix B* for more detail on average calculation.

Figure 4.19: Number of Individuals in RI APCD Accessing Care Related to SUD at Intensive Outpatient Programs



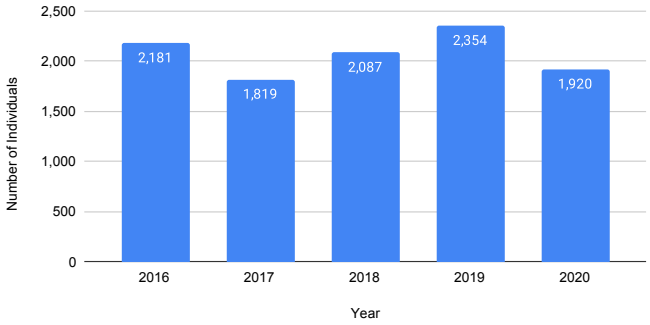
(**i**) Refer to Fig. 4.10 for definition of SUD and "accessing care related to SUD."

Figure 4.20: Number of Individuals in RI APCD Accessing Care Related to SUD at Partial Hospitalization Programs



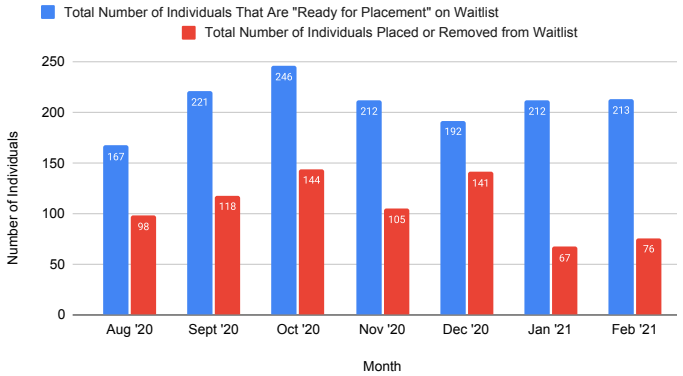
(**i**) Refer to Fig. 4.10 for definition of SUD and "accessing care related to SUD."

Figure 4.21: Number of Individuals in RI APCD Accessing Care Related to SUD at Residential Programs



(**i**) Refer to Fig. 4.10 for definition of SUD and "accessing care related to SUD."

Figure 4.22: Number of Individuals Waiting for a SUD Residential Bed



(**i**) Data provided by the Rhode Island Department of Behavioral Health, Developmental Disabilities and Hospitals (BHDDH), originating from weekly provider waitlist submissions.

(**ii**) Individuals considered "ready for placement" include those waiting for an SUD residential bed at any time during the month, regardless of whether or not they were

PHPs has decreased every year since 2016, falling by over 50% in this span. It is interesting to note that unlike IOPs and PHPs, the number of individuals accessing SUD-related care at residential programs was not at its lowest in 2020, despite the healthcare complications presented by the COVID-19 pandemic.

Oftentimes, SUD residential treatment is not immediately available due to lengthy admission waitlists. Drawing from weekly provider submissions, the Rhode Island Department of Behavioral Health, Developmental Disabilities and Hospitals (BHDDH) provided a sample of data from August 2020 to February 2021 regarding waitlist placements for SUD residential beds (**Fig. 4.22**). In this seven-month span, an average of 209 individuals per month were "ready for placement" on a waitlist for a SUD residential bed, while an average of only 107 individuals were either placed or removed. While specific situational outcomes that could add nuance to this ratio were not provided, it is nonetheless an illuminating metric to consider in the context of striving for ease of treatment access.

Emergency Room Care for Substance Use Disorders

Research indicates that substance abuse-related mental illnesses and conditions are strong predictors of emergency department use.[7] Patterns that are consistent with this finding were present among individuals

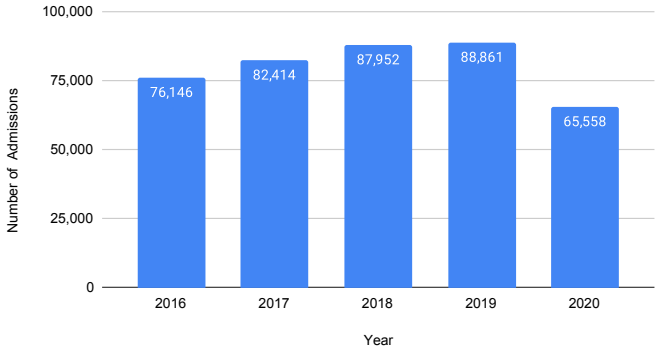
[7] Smith, M. W., Stocks, C., & Santora, P. B. (2015). Hospital readmission rates and emergency department visits for mental health and substance abuse conditions. Community mental health journal, 51(2), 190–197. https://doi.org/10.1007/s10597-014-9784-x

in the RI APCD. As previously highlighted, RI APCD members that accessed SUD-related care were more likely to do so at an emergency room than members that accessed AMI-related care, making emergency room use for SUD reasons a compelling area of further study.

Emergency room admissions related to SUD averaged 80,186 annually over the past five years (**Fig. 4.23**), although this value is skewed significantly by the inclusion of 2020. After rising steadily from 76,146 SUD-related admissions in 2016 to a highest recorded value of 88,861 admissions in 2019, this metric fell 26.2% to 65,558 admissions in 2020. This substantial and abrupt change can reasonably be attributed to the broader effect that the COVID-19 pandemic has had on use of emergency room care; it has been well-documented by government agencies including the CDC that emergency department visits have fallen appreciably over the past year.[8]

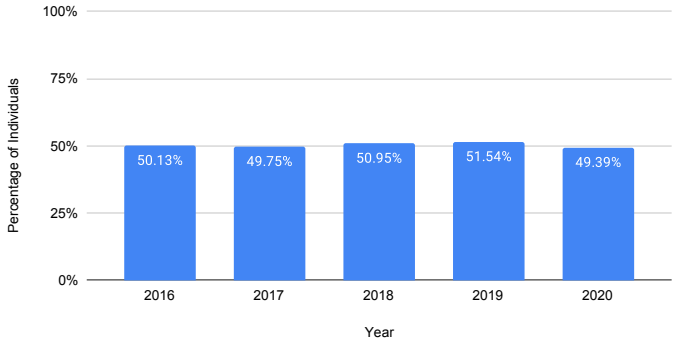
The rate of readmission to the emergency room for SUD care was also of particular note. Between 2016 and 2020, an average of 50.4% of individuals in the RI APCD who accessed SUD-related care at the emergency room had been discharged from the emergency room for SUD-related care less than a year prior. (**Fig. 4.24**). The rate of readmission has exhibited little variation over the five reported years, most recently being measured at 49.39% in 2020. In order to meaningfully confront these markedly high figures, it is important to consider the myriad underlying factors that may exacerbate one's risk for emergency room readmission — including how one's insurance (or lack thereof) may impede one's ability to access more intensive forms of SUD care.

Figure 4.23: Number of Emergency Room Admissions Related to SUD



(**i**) Admissions considered as being "related to SUD" are admissions in which the corresponding insurance claim contained a SUD-related ICD-10 code (refer to Fig. 4.10).

Figure 4.24: Percentage of Individuals in RI APCD Readmitted to the Emergency Room for Care Related to SUD



(**i**) Metric describes the percentage of individuals with a SUD-related ICD-10 code (refer to Fig. 4.10) on an insurance claim for emergency room care who, less than a year prior, had been discharged from the emergency room with a SUD-related ICD-10 code on the claim.

[8] Hartnett KP, Kite-Powell A, DeVies J, et al. Impact of the COVID-19 Pandemic on Emergency Department Visits — United States, January1, 2019–May 30, 2020. MMWR Morb Mortal Wkly Rep 2020;69:699–704. DOI: http://dx.doi.org/10.15585/mmwr.mm6923e1

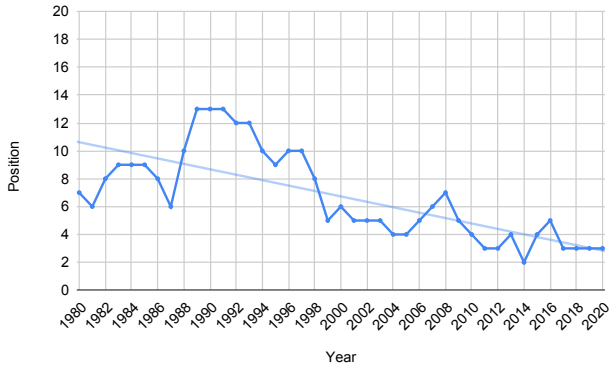
5

BEHAVIORAL HEALTHCARE IN THE CORRECTIONS SYSTEM

Presently, the criminal justice system is the largest provider of mental health care in the United States.[1] Aside from the larger structural implications of this fact and the disparities in which it often results, the sheer number of individuals in Rhode Island correctional facilities necessitates a nuanced examination of the care they receive, the costs incurred by the state to provide this care, and how these metrics vary across facility types.

Historically, the incarceration rate in Rhode Island (quantified as incarcerated individuals per 100,000 population) has been among the lowest of any state in the United States (**Fig. 5.1**) and far below the national average. For example, Rhode Island's incarceration rate in 2018 was 361 individuals per

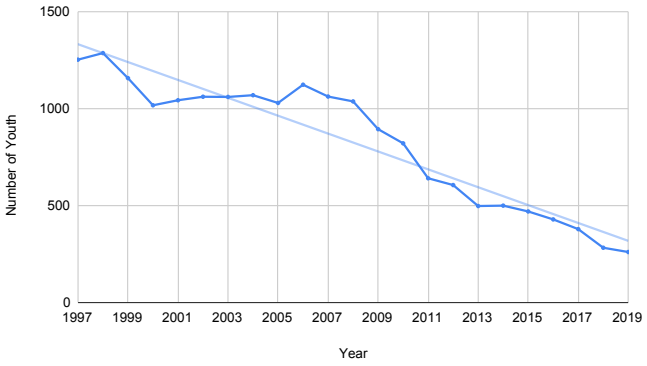
Figure 5.1: Rhode Island Position in United States 50-State Ranking of Incarceration Rates



(**i**) Data provided by the Bureau Justice of Statistics (BJS).

(**ii**) A ranking of 1 indicates an incarceration rate that is the lowest among the 50-states, with incarceration rates being defined as incarcerated individuals per 100,000 state population.

Figure 5.2: Youth at the Rhode Island Training School



(**i**) According to the Rhode Island Dept. of Children, Youth, and Families (DCYF), the Rhode Island Training School (RITS) is "a secure correctional program for male and female youth who are detained and/or sentenced to the facility by order of the Rhode Island Family Court. The RITS provides for the rehabilitation of youth through a comprehensive continuum of services provided in partnership with families, the community and the Department. Supervision, security, education, behavioral health, health and transition services are provided to all youth incarcerated at the RITS in an individualized, culturally and gender sensitive manner."

100,000 population, while the national average was 698.[2] This statement must be qualified, however, with global context: Rhode Island's incarceration rate in 2018, the third-lowest in the nation, still vastly dwarfed those of other high-income countries. It was over triple that of Canada (114 individuals per 100,000 population), nearly four times that of Italy (96 individuals per 100,000 population), and nearly ten times that of Iceland (38 individuals per 100,000 population).[3]

Youth incarceration and detainment is also prevalent within the United States, with national rates of juveniles in custody reaching 138 per 100,000 in 2015.[4] According to data provided by the Rhode Island Department of Corrections (RIDOC) and published by the Rhode Island Kids Count Factbook, the number of youth at the Rhode Island Training School (RITS) has decreased substantially over the past several decades (**Fig. 5.2**), falling from a peak of 1,286 in 1998 to a low of 261 in 2019. This represents a 79.7% decrease and an encouraging sign of progress, particularly because incarceration has repeatedly been

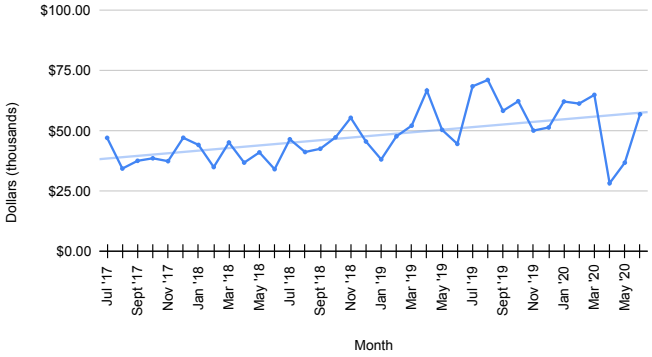
[1] Al-Rousan, T., Rubenstein, L., Sieleni, B., Deol, H., & Wallace, R. B. (2017). Inside the nation's largest mental health institution: a prevalence study in a state prison system. *BMC public health*, 17(1), 342. https://doi.org/10.1186/s12889-017-4257-0

[2] Rhode Island profile. (2018). *Prison Policy Initiative*. https://www.prisonpolicy.org/profiles/RI.html#:~:text=Rhode%20Island%20has%20an%20incarceration,than%20many%20wealthy%20democracies%20do.

[3] Ibid.

[4] Juvenile Custody Rate: Rhode Island. (2015). The Sentencing Project. https://www.sentencingproject.org/the-facts/#map?dataset-option=JCR

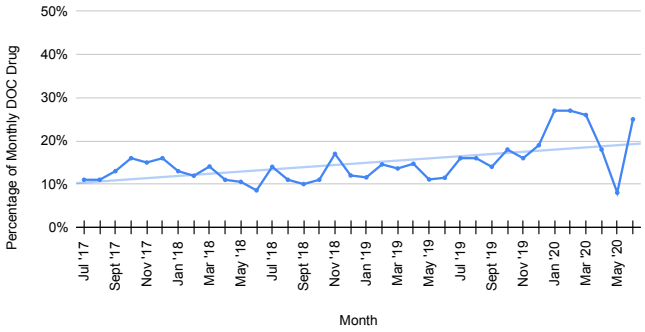
Figure 5.3: Total Monthly RIDOC Expenditures on Psychiatric Medications



(**i**) Data provided by the Department of Corrections (DOC).

(**ii**) Psychiatric medications include all psychotropic drug classes, both formulary and non-formulary.

Figure 5.4: Percentage of Monthly RIDOC Drug Expenditures Accounted for by Psychiatric Medications



(**i**) Data provided by the DOC.

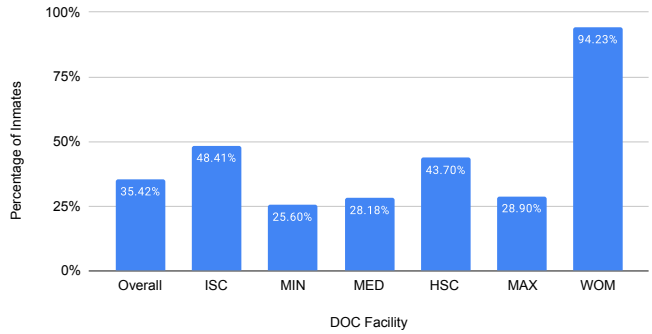
(**ii**) Refer to Fig. 5.3 for the definition of "psychiatric medications."

shown to contribute to poor health and educational outcomes for juveniles.[5]

Rhode Island's correctional system, managed by RIDOC, consists of seven major detention facilities: five for males and two for females.[6] The facilities for males include the Anthony P. Travisono Intake Service Center (ISC), the High Security Center (HSC), the Maximum Security Facility (MAX), the John J. Moran Medium Security Facility (MED), and the Minimum Security Facility (MIN). The facilities for females include the Gloria McDonald Women's Facility (WOM) and the Bernadette Building, although only the former currently houses inmates. More detailed information about the facilities can be found in *Appendix E*.

RIDOC provided data for monthly drug expenditures for most months between January 2017 and January 2021. It should be noted that incarcerated adults, on average, have a higher prevalence of chronic conditions, infectious diseases, and mental illness compared to the non-incarcerated population,[7] and that Medicaid and Medicare do not cover treatment for incarcerated individuals.[8] Therefore, the cost of all outpatient healthcare and pharmaceutical services falls to the State. Of the 36 recorded months between July 2017 and June 2020, psychiatric medications accounted for an average of 15% of monthly drug expenditures, or $48,034.03 per month (**Fig. 5.3, Fig. 5.4**).

Figure 5.5: Percentage of Inmates on Psychiatric Medications by RIDOC Facility, 2017-2020 Average



(**i**) Data provided by the DOC.

(**ii**) Inmates classified as being "on psychiatric medications" according to the DOC are inmates who have at least one prescription of any kind that falls under the category of psychiatric medications (refer to Fig. 5.3 for definition).

(**iii**) See *Appendix B* for more detail on average calculation.

(**iv**) See *Appendix E* for more detail about each facility type.

Across all facilities between January 2017 and January 2021, an average of 35.4% of inmates were on psychiatric medications of some kind, costing an average of $51.59 per inmate per month (**Fig. 5.5, Fig. 5.6**). There is no immediately obvious correlation between level of security and percentage of inmates on psychiatric medications during this time span. The Gloria McDonald Women's Facility (WOM) was the highest with 94.2% of inmates on psychiatric medications. While the lowest was the Minimum Security Facility (MIN) with 25.6% of inmates on psychiatric medications, the Maximum

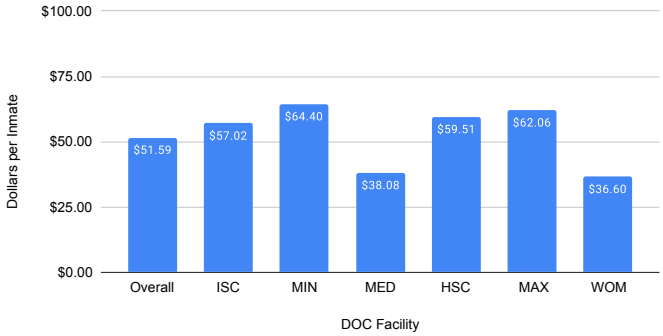
[5] Barnert, E. S., Dudovitz, R., Nelson, B. B., Coker, T. R., Biely, C., Li, N., & Chung, P. J. (2017). How Does Incarcerating Young People Affect Their Adult Health Outcomes?. *Pediatrics*, 139(2), e20162624. https://doi.org/10.1542/peds.2016-2624

[6] Facilities. (2021). *Rhode Island Department of Corrections (RIDOC)*. http://www.doc.ri.gov/institutions/facilities/

[7] Maruschak, L.M., Berzofsky, M.B. (Oct. 2016). Medical Problems of State and Federal Prisoners and Jail Inmates, 2011–12. *The U.S. Department of Justice Bureau of Justice Statistics (BJS)*.

[8] U.S. Congress. (1934) United States Code: Social Security Act, 42 U.S.C. §§ 301- Suppl. 4 1934. [Periodical] Retrieved from the Library of Congress, https://www.loc.gov/item/uscode1934-005042007/.

Figure 5.6: Monthly Expenditures per Inmate on Psychiatric Medications by RIDOC Facility, 2017-2020 Average



(**i**) Data provided by the DOC.

(**ii**) Refer to Fig. 5.5 for an explanation of which inmates are classified as being "on psychiatric medications."

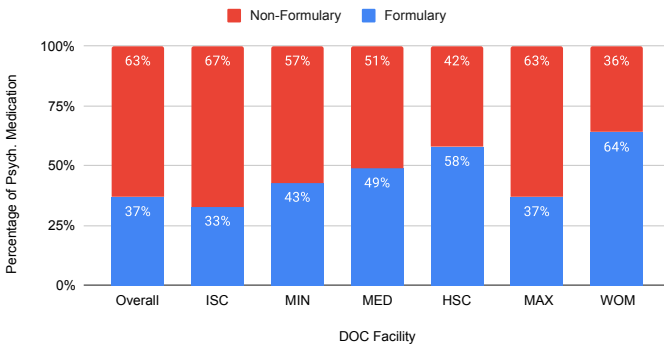
(**iii**) See *Appendix B* for more detail on average calculation.

Security Facility (MAX) was barely higher with 26.9% of inmates on psychiatric medications. Similarly, there does not seem to be a correlation between level of security and cost per inmate on psychiatric medication, with MIN at $64.40 per inmate and MAX at $62.06 per inmate.

RIDOC employs Contract Pharmacy Services (CPS) during the process of purchasing medications for inmates at its facilities. According to its website, CPS provides "medication fulfillment and pharmacy consulting services" to clients such as RIDOC, working to select medications that offer effective therapeutic response at a lower cost than other options.[9] CPS partners with RIDOC to build a formulary of preferred medications for clinical and/or cost-effectiveness. It is important to note that medications on the formulary are generally less expensive than non-formulary medications. Between January 2017 and January 2021, the average percentage of monthly psychiatric medication expenditures accounted for by drugs on the RIDOC formulary varied widely across facilities, with an average of 63% of all monthly RIDOC psychiatric medication expenditures accounted for by non-formulary medications (**Fig. 5.7**). With the exception of the Maximum Security Facility, the percentage of expenditures accounted for by formulary medications seemed to increase with level of security, ranging from 33% for the ISC to 58% for the HSC.

Expenditures on psychiatric medications can also be broken down by drug class. Of the total psychiatric medication expenses for all RIDOC facilities in the past year, nearly 70% can be accounted for by either brand-name or generic second generation antipsychotic medications (**Fig. 5.8**). The remaining 30% of expenses can be accounted for by first-generation antipsychotic medications (9.9%) and a mixture of antidepressants, such as selective serotonin reuptake inhibitors (SSRIs, 3.5%) and tricyclic antidepressants (3.1%).

Figure 5.7: Breakdown of RIDOC Psychiatric Medication Expenditures by Inclusion on RIDOC Formulary, 2017-2020 Average

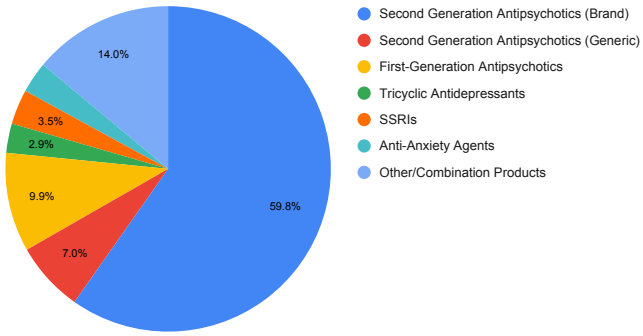


(**i**) Data provided by the DOC.

(**ii**) A medication is deemed to be "included on the RIDOC formulary" if it is present on the list of preferred purchasing options for each drug class that is crafted with the consultation of Contract Pharmacy Services (CPS).

(**iii**) See *Appendix B* for more detail on average calculation.

Figure 5.8: Breakdown of Total RIDOC Psychiatric Medication Expenditures by Antipsychotic and Antidepressant Class (June 2020-May 2021)



(**i**) Data provided by the DOC.

(**ii**) See *Appendix I* for definitions and examples of each drug class.

(**iii**) See *Appendix B* for more detail on average calculation.

[9] About CPS. (2019). *Contract Pharmacy Services*. https://www.contractpharmacy.com/about-cps/

In addition to the behavioral health-related costs associated with the Rhode Island correctional system, it is important to understand the prevalence of mental illness among incarcerated individuals. However, the data provided to us regarding the prevalence of serious and persistent mental illness (SPMI) across facilities were extremely limited, with only three point-in-time counts for each facility. While far more extensive tracking and documentation is needed, it is worth reporting that an average of 7% of the total population was noted as living with SPMI and that the HSC consistently exceeded this average, rising as high as 23% in January 2017.

6

DEMOGRAPHICS AND DISPARITIES IN BEHAVIORAL HEALTHCARE

Nationally, Black, Indigenous, and People of Color (BIPOC) are less likely to access mental health services compared to White people, despite reporting equal or higher rates of mental illness.[1] BIPOC are more likely to receive a poorer quality of mental health care than White people and are more likely to delay seeking treatment. Once in treatment, Black people are more likely than White people to terminate mental health treatment prematurely.[2]

These are just a few examples of the racial and ethnic disparities that persist within the United States behavioral healthcare system. In order to understand how such disparities impact BIPOC in Rhode Island, one must turn to reporting that incorporates race and ethnicity, including behavioral health service utilization rates and the racial and ethnic breakdown of behavioral healthcare providers. It is also essential to note where more data collection is necessary in order to build a more complete picture of any disparities which exist in the state; doing so will ensure that targeted solutions can be developed to strive for equity in behavioral healthcare service delivery moving forward.

Behavioral Healthcare Enrollment by Race and Ethnicity

The Department of Behavioral Healthcare, Developmental Disabilities and Hospitals (BHDDH) licenses behavioral healthcare facilities across the state. Licensed facilities report the race and ethnicity of enrollees directly to BHDDH upon admission, regardless of the patient's insurance type or uninsured status. Admission data is due at least monthly for all programs, although some have different requirements, such as providers of medication-assisted treatment (MAT), who must update daily. All fields must be updated at least every six months while an individual is in treatment.

It is important to note that the data referenced in this subsection only include adults in Rhode Island accessing behavioral health services at BHDDH-licensed facilities and, thus, exclude any individuals accessing care from individually-licensed providers in Rhode Island. Individually-licensed providers include, for example, private therapists practicing in Rhode Island. Therefore, it should be noted that the cohort of clients served by the facility types and providers listed here are not necessarily representative of all individuals accessing treatment in Rhode Island. However, the population in the Behavioral Health On-line Data (BHOLD) system from which these figures were drawn is typically characteristically similar to Rhode Island's Medicaid population.

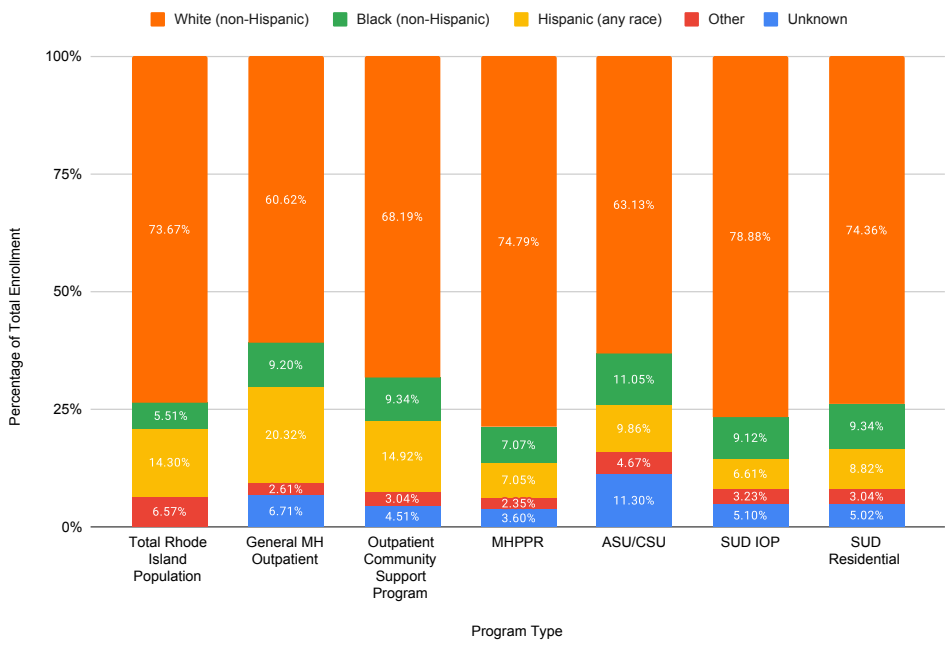
For this report, BHDDH provided demographic breakdowns including race and ethnicity for clients accessing six types of behavioral health treatment programs: General Mental Health Outpatient Treatment (General MH Outpatient), Outpatient Community Support Program, Mental Health Psychiatric Rehabilitation Residences (MHPRR), Acute Stabilization Unit/Crisis Stabilization Units (ASU/CSU), Substance Use Disorder Intensive Outpatient Treatment (SUD IOP), and Substance Use Disorder Residential Treatment (SUD Residential) (**Fig. 6.1**).

The majority of people who accessed treatment at these BHDDH-licensed facilities during the interval for which data were provided were White, which paralleled the demographic composition of the state more broadly. White people comprised an average of 69.8% of enrolled clients across all six program types, a number that closely reflects Rhode Island's population, which is 73.7% White. There were, however, instances in which enrollment demographics diverged from those of the state itself. White people were slightly overrepresented at 78.9% in SUD IOP enrollment while Hispanic people only comprised 6.6% of

[1] McGuire, T. G., & Miranda, J. (2008). New evidence regarding racial and ethnic disparities in mental health: policy implications. *Health affairs (Project Hope)*, 27(2), 393–403. https://doi.org/10.1377/hlthaff.27.2.393

[2] Ibid.

Figure 6.1: Racial and Ethnic Distribution of Enrollment by BHDDH-Licensed Program Type, 2010-2019 Average



(**i**) Data provided by the Rhode Island Department of Behavioral Healthcare, Developmental Disabilities and Hospitals (BHDDH).

(**ii**) "Enrollment" includes all adults served per year (regardless of admission date).

(**iii**) See *Appendix B* for more detail on average calculation.

(**iv**) See *Appendix G* for program type descriptions.

SUD IOP enrollment, despite making up 14.3% of Rhode Island's population. Although this underrepresentation of Hispanic people was most notable in this example, a similar pattern can be observed in four out of the five program types. For example, Hispanic people made up 7.1% and 8.82% of MHPRR and SUD residential enrollment, respectively.

While one cannot assign cause to this underrepresentation solely based on the data provided by BHDDH, it is important to note that Hispanic people have faced well-documented access barriers to behavioral health treatment. Specifically, Hispanic people are the most uninsured population in the state, a factor that significantly impedes one's ability to access care.[3] Thus, it is possible that the relative lack of Hispanic representation among the aforementioned program types is indicative of increased access barriers to care faced by Hispanic people in Rhode Island.

Race and Ethnicity of Providers in Rhode Island Community Mental Health Centers

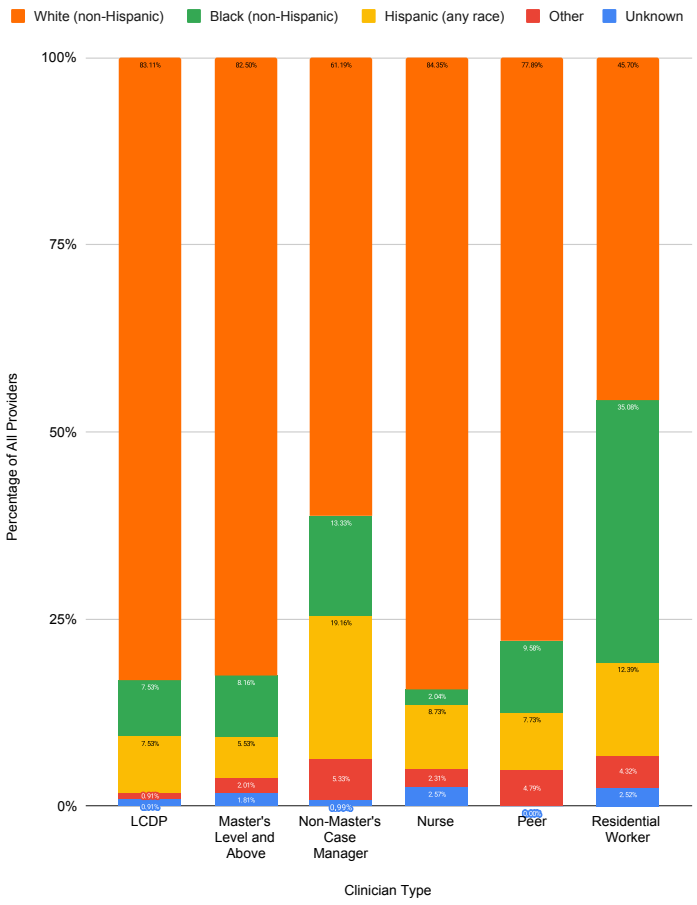
Reaching out for behavioral health treatment can be an emotionally challenging process which often entails the daunting task of recounting personal circumstances and vulnerable emotions to a provider who starts out as a complete stranger. Speaking with someone who has similar life experiences may make this process less scary, as such familiarity and relatability often foster feelings of comfort and safety.

Sharing lived experience does not only mean facing similar circumstances, such as growing up in the same city, living in a low-income neighborhood, or seeing your parents go through a divorce — it also includes shared knowledge of culture and language. Thus, having a diverse provider pool is critical to the cultivation of a behavioral healthcare system in which individuals feel comfortable seeking and receiving care.

In order to explore the representation of Rhode Island's provider pool, we use client-facing Com-

[3] State of Rhode Island: Department of Health." State of Rhode Island: Department of Health. https://health.ri.gov/data/healthcareaccess/.

Figure 6.2: Racial Ethnic Breakdown of Community Mental Health Center Providers by Client-Care Staff Position, 2018-2019 Average



(**i**) Data provided by BHDDH.

(**ii**) See *Appendix B* for more detail on average calculation.

(**iii**) See *Appendix H* for client-care staff position descriptions.

munity Mental Health Center (CMHC) staff as an illustrative example. BHDDH provided the races and ethnicities for CMHC client-facing providers by staff position for 2018 and 2019, from which an average was calculated. Six total client-care staff positions were included in the data: Licensed Chemical Dependency Professional (LCDP), Master's Level and Above, Non-Master's Case Manager, Nurse, Peer, and Residential Worker (**Fig. 6.2**).

Of the client-care staff positions reported, White people comprised the majority of providers available at CMHCs. This was especially true for LCDPs, master's level (and above) clinicians, and nurses: BIPOC only comprised 16.9%, 17.5%, and 15.4% of these client-care position types, respectively. It is important to note that in this same time period, the cumulative percentage of BIPOC in Rhode Island's population was 28.9%, revealing an underrepresentation of BIPOC providers relative to the overall population.[4] Between 2018 and 2019, only 2% of the nursing staff at CMHCs was Black on average (compared to 5.8% of the population) and only 5.5% of staff members with a master's degree or higher were Hispanic (compared to 16.1% of the population).[5] Residential workers — among the lowest-paid positions in the field — represent a marked exception to this trend, with BIPOC comprising over 50% of the staff. To fully understand what motivated this discrepancy, more research is necessary.

BHDDH additionally provided the races and ethnicities of providers by position type for 2018 and 2019. Six total position types were reported: Full-Time, Part-Time, Contract, On-Call, Student, and Other (**Fig. 6.3**). In general, the 2018-2019 average breakdown of races and ethnicities was similar across each of the position types, with BIPOC comprising between 25.0% and 33.9% of each position type for five out of six position types. One notable exception is contract workers, among whom 92.0% of staff members were White. While additional research is needed to understand this discrepancy, it is interesting to note that the vast majority (87.5%) of contract workers were also classified as "master's level and above" staff members.

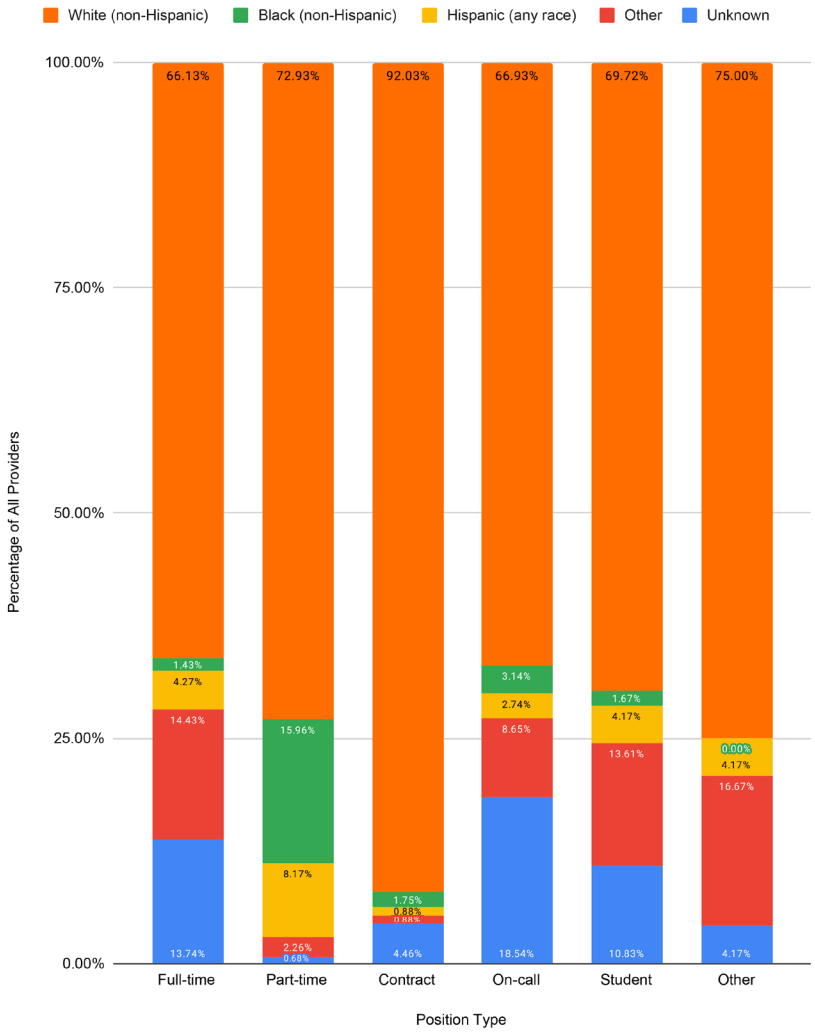
The provision of culturally appropriate language services is central to the development of a culturally competent behavioral healthcare practice, as providers can only truly practice in the context of their community if they or their staff are proficient in the languages spoken by the individuals they serve.[6] BHDDH provided a breakdown of the second languages, if applicable, spoken by client-facing staff at CMHCs in 2018 and 2019. Nearly 80% of staff members during this span spoke no second language (**Fig. 6.4**). The most common second language was Spanish, which was spoken by 12.2% of staff members.

[4] U.S. Census Bureau 2019 American Community Survey 1-Year Estimates (2019). *United States Census Bureau*. https://data.census.gov/cedsci/table?q=rhode%20island%20race&y=2019&tid=ACSDP1Y2019.DP05&hidePreview=true

[5] Ibid.

[6] Fortier, J.P. et al. (2000). Assuring Cultural Competence in Health Care: Recommendations for National Standards and an Outcomes-Focused Research Agenda. *United States Office of Health and Human Services, Office of Minority Health*. https://minorityhealth.hhs.gov/Assets/pdf/checked/Assuring_Cultural_Competence_in_Health_Care-1999.pdf

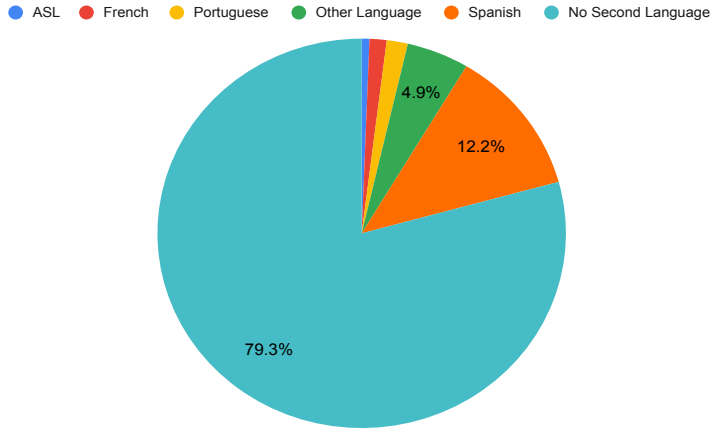
Figure 6.3: Racial and Ethnic Breakdown of Community Mental Health Center Providers by Position Type, 2018-2019 Average



(**i**) Data provided by BHDDH.

(**ii**) See *Appendix B* for more detail on average calculation.

Figure 6.4: Breakdown of Second Languages Spoken by Community Mental Health Center Client-Facing Staff, 2018-2019 Average



(**i**) Data provided by BHDDH.

(**ii**) See *Appendix B* for more detail on average calculation.

Improving Data Collection Efforts

Robust methods of data collection are central to constructing a clearer picture of BIPOC representation in behavioral healthcare, both in terms of patient enrollment and the provider pool. Thus, it is important to highlight gaps in reporting in order to augment future research efforts.

Existing standards for data collection in the United States often do not reflect the increasingly diverse nature of the country's population. For example, the Census (frequently used as a major repository for demographic information) uses the racial categories of White, Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, Two or More Races, and the ethnicity categories of Hispanic or Latino and Not Hispanic or Latino.[7] This categorization, however, does not account for myriad nuanced *cultural* differences among populations, such as in the case of Arabs and Middle Easterners, who are considered White by the Census. Similarly, distinctions among Hispanic cultures (Spanish, Caribbean, Central American, and South American) are not accounted for, despite the diversity within these populations. Ensuring that demographic reporting offers a representative cross-section of the multidimensional complexity that is so emblematic of the nation at large is crucial to eliminating any disparities which may exist therein.

Finally, the sparse availability of race and ethnicity data in particularly the healthcare sphere should be targeted as an opportunity for further improvement moving forward. For example, the RI APCD does not include demographic information beyond age, gender, and geography. By omitting race and ethnicity from this otherwise expansive database, a crucial element of the discussion surrounding care utilization and access is left untapped. As a result, potentially less complete, current, or representative sources of this information may be used instead.

It is also important to distinguish between self-identified and provider-assumed or provider-documented race and ethnicity data. The Office of Management and Budget (OMB) and BHDDH standards promote self-identification to the fullest extent possible, with providers instructed to ask each demographic question individually. However, adherence to these guidelines in practice is uncertain.

[7] The US Census Bureau. n.d. "QuickFacts Rhode Island." *The US Census Bureau*. https://www.census.gov/quickfacts/fact/table/RI/RHI325219#RHI325219.

7 FINANCING OF BEHAVIORAL HEALTHCARE SERVICES

Both in the United States and around the world, there is chronic underinvestment in behavioral healthcare. While annual health expenditures average $141 per capita globally, the median per-capita government spending on mental health services in 2017 was only $2.50 — a staggeringly high discrepancy.[1] On average, low-to-middle-income countries (LMICs) spend only 0.5% of national health budgets on mental health services, a figure that only rises to 5% for high-income countries (HICs). As of 2017, less than half of World Health Organization (WHO) member states were even able to report on their domestic budgets for behavioral health care, reflecting a persistent lack of prioritization of such financing.[2]

While highlighting these figures may impel some to support increased behavioral healthcare spending, it is important to acknowledge that others may still be hesitant due to the field's already large costs. Indeed, mental health disorders alone are projected to contribute to $16.1 trillion in losses for the United States between 2010 and 2030.[3] However, according to population and disease modeling by the WHO Department of Mental Health and Substance Abuse, a heightened financial focus on mental health would both increase healthy life-years and yield a remarkable economic return. Specifically, researchers project that every $1 invested in scaled-up behavioral healthcare resources would yield $5 in increased health and productivity.[4] In addition to supporting the importance of increased investment in behavioral healthcare, this projection also highlights just how much behavioral healthcare spending can impact both individuals and economies — clearly demonstrating a need to report such spending in an accessible, transparent, and understandable manner.

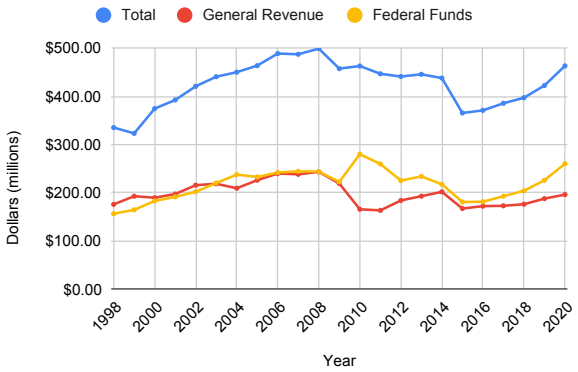
Budgets for the Department of Behavioral Health, Developmental Disabilities and Hospitals (BHDDH)

The Department of Behavioral Healthcare, Developmental Disabilities and Hospitals (BHDDH) — previously named the Department of Mental Health, Retardation, and Hospitals (MHRH) from 1967-2010 — is responsible for facilitating the delivery of healthcare services for individuals with differing intellectual/developmental abilities, mental health or substance use disorders, or who are in the care of facilities administered by the Department.[5] The responsibilities of BHDDH include, but are not limited to, the licensing of organizations that provide behavioral healthcare services, the monitoring of mental health and substance use disorder treatment services, and the operation of Eleanor Slater Hospital. BHDDH is predominantly funded by a mixture of general revenue and federal funds. Before discussing specific expenditures, it is important to note that the Rhode Island State Government cannot control the amount of block grant money dispensed by the federal government; highlighting these funding levels is simply meant to encourage vigilance in the attention paid to the financial support of critical state agencies.

While the raw value of annual funding for MHRH/BHDDH has increased between 1997 and 2020, it has not kept pace with inflation over this time span. The total budget for the department was approximately $306 million in 1997 and $463 million in 2020 (**Fig. 7.1**). According to the United States Bureau of Labor Statistics, cumulative inflation over that same time period indicates that $306 million in July 1997 would have the same buying power as $494 million in July 2020.[6]

[1] Mahomed F. (2020). Addressing the Problem of Severe Underinvestment in Mental Health and Well-Being from a Human Rights Perspective. *Health and human rights, 22(1)*, 35–49.
[2] Ibid.
[3] Chisholm, D., Sweeny, K., Sheehan, P., Rasmussen, B., Smit, F., Cuijpers, P., & Saxena, S. (2016). Scaling-up treatment of depression and anxiety: A global return on investment analysis. The Lancet Psychiatry, 3(5), 415–424. https://doi.org/10.1016/S2215-0366(16)30024-4
[4] Ibid.
[5] Our Mission, Vision, and Values. (2021). *State of Rhode Island Department of Behavioral Healthcare, Disabilities and Hospitals (BHDDH)*. https://bhddh.ri.gov/about/missionstatement/
[6] CPI Inflation Calculator (2021). *U.S. Bureau of Labor Statistics*. https://www.bls.gov/data/inflation_calculator.htm

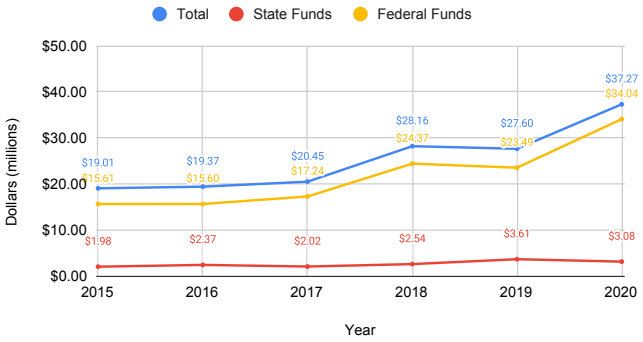
Figure 7.1: Annual Budget Appropriation for MHRH/BHDDH



(**i**) Data from enacted Rhode Island state budgets for fiscal years 1997-2020.

(**ii**) The sum of "General Revenue" and "Federal Funds" for any given year may not equal "Total" because, for simplicity's sake, we did not plot funding sources such "Restricted Receipts" and "Operating Transfers From Other Funds," which tend to represent less than 4% of funding on a year-to-year basis.

Figure 7.2: Annual Budget Appropriation within BHDDH for Behavioral Health Services Program

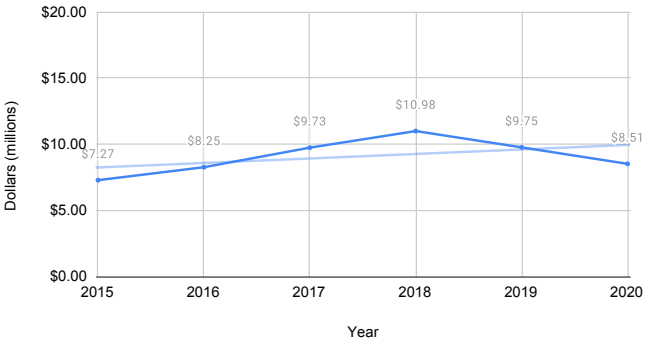


(**i**) Data from enacted Rhode Island state budgets for fiscal years 2015-2020.

(**ii**) The sum of "General Revenue" and "Federal Funds" for any given year may not equal "Total" because, for simplicity's sake, we did not plot funding sources such "Restricted Receipts" and "Operating Transfers From Other Funds," which tend to represent less than 4% of funding on a year-to-year basis.

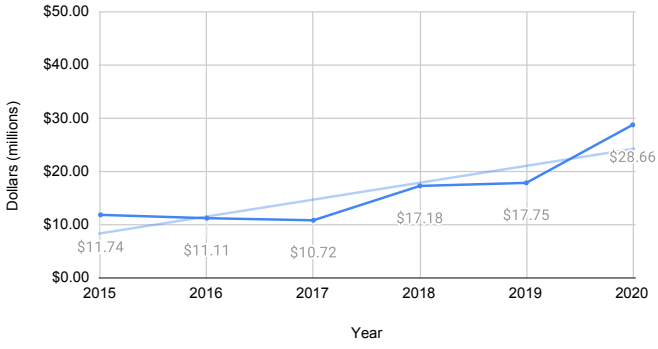
Within BHDDH, funding is partitioned into five major programs: Central Management, Hospital and Community System Support, Services for the Developmentally Disabled, Behavioral Healthcare Services, and Hospital and Community Rehabilitation services.[7] Each of these programs has its own budget, which is further divided into expenditures by subprogram. In the case of Behavioral Healthcare Services, the two major subprograms are Mental Health and Substance Abuse. Overall funding for the Behavioral Healthcare Services program comes in large part from federal funds, but also draws from general revenue. Over the past six fiscal years, budget appropriation for the Behavioral Healthcare Services program has risen steadily from $19 million in FY 2015 to $37.3 million in FY 2020 (**Fig. 7.2**). Funding for the Mental Health subprogram has remained relatively steady between FY 2015 and FY 2020, averaging $9.1 million over this interval (**Fig. 7.3**). During this same time span, funding for the Substance Abuse subprogram has more than doubled and exceeded that of the Mental Health subprogram every year (**Fig. 7.4**).

Figure 7.3: Annual Budget Appropriation within BHDDH Behavioral Health Services for Mental Health Services



(**i**) Data from enacted Rhode Island state budgets for fiscal years 2015-2020.

Figure 7.4: Annual Budget Appropriation within BHDDH Behavioral Health Services for Substance Use Disorder Services



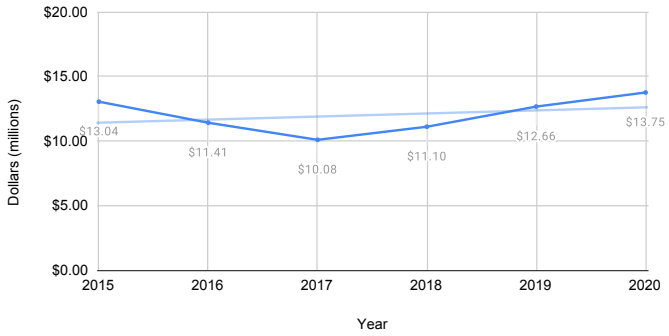
(**i**) Data from enacted Rhode Island state budgets for fiscal years 2015-2020.

Expenditures Toward Behavioral Healthcare Services in Eleanor Slater Hospital and Other Government Agencies

It is important to note that the Behavioral Healthcare Services program of BHDDH is not the only source of state agency funding for behavioral health treatment. For example, we include here the annual budget appropriation within the Rhode Island Department of Children, Youth and Families (DCYF) for Children's Behavioral Health Services (**Fig. 7.5**). The Division of Community Services and Behavioral Health (CSBH) at DCYF, established by RIGL §41-72-5.2, is a crucial element of the agency devoted to the

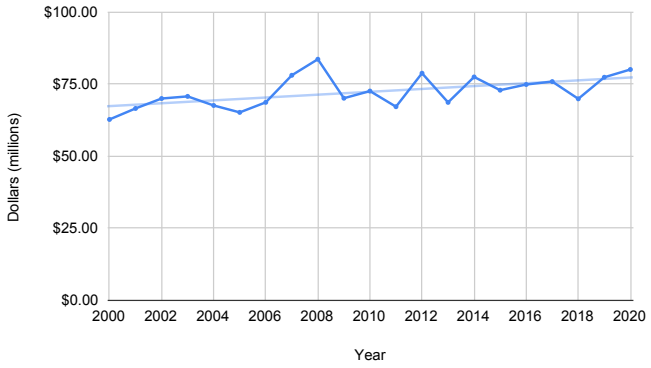
[7] Raimondo, G. (2019). State of Rhode Island and Providence Plantations Fiscal Year 2019 Budget: Volume II — Health and Human Services. *State of Rhode Island Office of Management and Budget (OMB).*

Figure 7.5: Annual Budget Appropriation within the Department of Children, Youth, and Families (DCYF) for Children's Behavioral Health Services



(**i**) Data from enacted Rhode Island state budgets for fiscal years 2000-2020.

Figure 7.6: Annual Budget Appropriation for Eleanor Slater Hospital

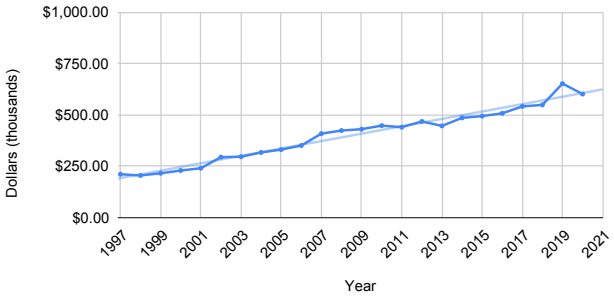


(**i**) Data from enacted Rhode Island state budgets for fiscal years 2000-2020.

development of a continuum of care for children's behavioral health services. Funding levels for this line item have remained quite stable between FY 2015 and FY 2020, averaging approximately $12 million annually.

Other line items highlighted here which pertain to behavioral healthcare services include the annual budget appropriations for Eleanor Slater Hospital (ESH) and the Office of the Mental Health Advocate (**Fig. 7.6, 7.7***)*. ESH is a two-campus, public psychiatric hospital operated by BHDDH whose financing has been the subject of public

Figure 7.7: Annual Budget Appropriation for the Office of the Mental Health Advocate



(**i**) Data from enacted Rhode Island state budgets for fiscal years 1997-2020.

debate for years.[8] This matter was complicated in 2019, when ESH fell out of compliance with federal billing requirements and stopped billing the United States Centers for Medicare and Medicaid Services to reimburse some services.[9] Recently, a plan to "downsize" ESH over the coming decade by decreasing spending was halted by Governor Dan McKee.[10] ESH is an important and necessary part of Rhode Island's continuum of care for individuals with disabilities, who often "step up" or "step down" to settings and services across the spectrum depending on the status of their condition. ESH is considered a "placement of last resort" for patients with complicated co-occurring behavioral health and medical disabilities, falling on the most restrictive end of the continuum of care. This restrictive nature, however, does not make it an illegitimate option for the patients who need the most intensive level of care. While the financial management of ESH will not be discussed in detail here, its historic funding levels are presented as a benchmark for subsequent years of this annual release.

The Office of the Mental Health Advocate is an independent state agency staffed by attorneys who provide free legal and advocacy services with the goal of preserving the rights and dignity of individuals in treatment of mental illness, including substance use disorders.[11] Funded exclusively by general revenue, annual spending for this agency has increased steadily over the course of the past two decades, outpacing the rate of inflation. In FY 2020, the enacted budget appropriation for the Office of the Mental Health Advocate was $602,411.

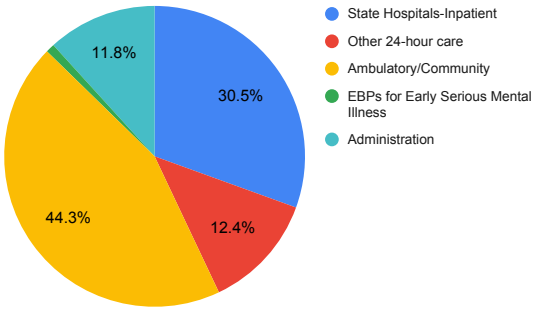
[8] Gregg, K. (Apr. 2021). 10 Things to Know About the Eleanor Slater Controversy. *The Providence Journal.* https://www.providencejournal.com/story/news/politics/2021/04/16/things-know-eleanor-slater-hospital-controversy/7213343002/

[9] Sherman, E. (Mar. 2021). 'This didn't happen overnight': The Financial Mess at Eleanor Slater Hospital. *WPRI.com*. https://www.wpri.com/target-12/this-didnt-happen-overnight-the-financial-mess-at-eleanor-slater-hospital/

[10] Amaral, B. (Apr. 2021). McKee administration puts on hold plans for major changes at Eleanor Slater Hospital. *Boston Globe*. https://www.bostonglobe.com/2021/04/16/metro/mckee-administration-puts-hold-plans-major-changes-eleanor-slater-hospital/

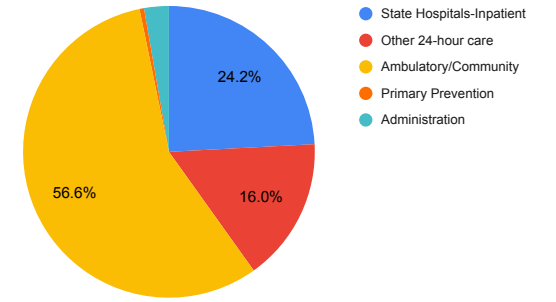
[11] Rhode Island Office of the Mental Health Advocate (2021). Ocean State Trauma Informed Community Coalition (OSTICC). http://osticc.org/resources-for-the-community/mental-health-advocate/

Figure 7.8: Rhode Island State Mental Health Authority Controlled Expenditures, 2011-2019 Average



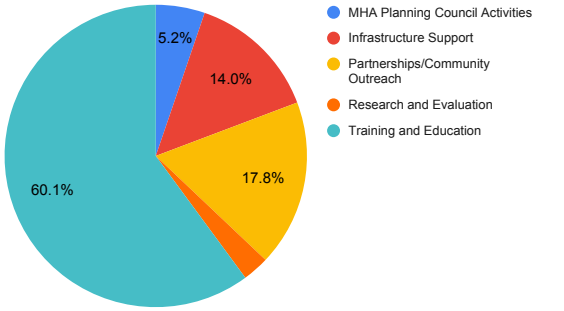
(i) Data from Uniform Reporting System (URS) Table 7, published annually by the Substance Abuse and Mental Health Services Administration (SAMHSA), reported by fiscal year.

Figure 7.9: United States Expenditures for State Mental Health Authorities, 2011-2019 Average



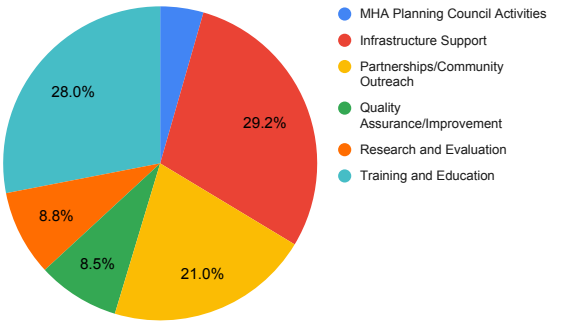
(i) Data from SAMHSA URS Table 7, reported by fiscal year.

Figure 7.10: Non-Direct Block Grant Expenditure Breakdown by Service Type (Rhode Island, 2017-2019 Average)



(i) Data from SAMHSA URS Table 8, reported by fiscal year.

Figure 7.11: Non-Direct Block Grant Expenditure Breakdown by Service Type (United States, 2017-2019 Average)



(i) Data from SAMHSA URS Table 8, reported by fiscal year.

SAMHSA Mental Health Block Grant (MHBG) Expenditures

The Uniform Reporting System (URS) published by the Substance Abuse and Mental Health Services Administration (SAMHSA) provides an overview of state mental health delivery systems. In addition to service utilization and outcomes, this includes a macro-level breakdown of federal mental health block grant expenditures and state mental health agency controlled expenditures for each fiscal year. In the past decade, the controlled expenditures of Rhode Island's state mental health authority (SMHA) typically hovered around $100 million annually (**Fig. 7.8**). Generally, Rhode Island's spending breakdown reflects similar trends to those conveyed by the national average over the same interval (**Fig. 7.9**). Rhode Island spends more proportionally on inpatient state hospitals and administration than the national average, but less on ambulatory/community care. At both the state and national level, we continue to see proportionally little funding allocated to primary prevention measures and evidence-based practices (EBPs) for early serious mental illness (ESMI).

Non-direct block grant expenditures for mental health are also known as system development activities; they are not involved in the direct provision of mental health services, but are instead meant to support the dispensation of primary prevention. SAMHSA reports non-direct block grant spending by service type. In 2017, the categorization of these services was reimagined in expanded fashion with the goal of drawing more meaningful distinctions between types of spending. Because Rhode Island mostly classified non-direct block grant spending as either "Administrative" or "Other" prior to 2017, we only report data here from 2017-2019 using the current URS spending categories.[12] For definitions of each of these categories, see *Appendix F*.

Several notable distinctions exist between the non-direct block grant expenditures of Rhode Island and the United States average during this span (**Fig. 7.10, 7.11**). First, Rhode Island allocates more non-direct block grant funds to "Training and Education" than the average state, spending 60.1% of annual non-direct Community Mental Health Services Block Grant (MHBG) funding on this service category compared to the nationwide average of 28.0%. Rhode Island's spending on "Research and Evaluation," "Quality Assurance and Improvement," and "Infrastructure Support" fall significantly below the United States

[12] FFY 2020-2021 Block Grant Application. (2020). *Substance Abuse and Mental Health Services Administration (SAMHSA)*. https://www.samhsa.gov/sites/default/files/grants/ffy_2020-2021_block_grant_application_and_plan.pdf

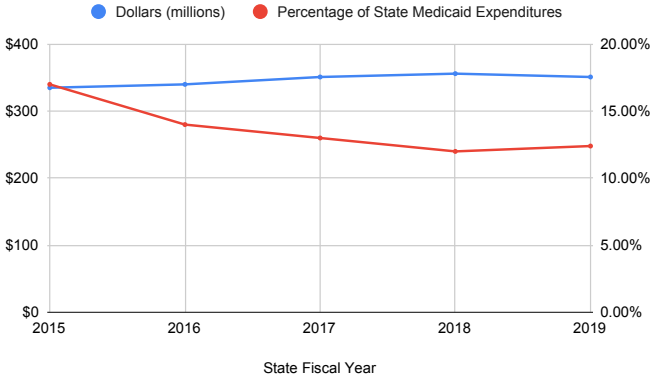
average, while its spending on "MHA Planning Council Activities" as well as "Partnerships, Community Outreach, and Needs Assessment" generally align with the United States average. While three years is a limited sample size, it is nonetheless vital to compare data at the state and federal levels to ensure the cultivation of delivery systems that provide high-quality, cost effective care.

Medicaid Expenditures

Federal funds referenced in enacted budgets for BHDDH from the RI Office of Management and Budget (OMB) largely represent an amalgam of grant funding, primarily awarded through SAMHSA. In addition to these budgeted expenditures, hundreds of millions of Medicaid dollars are also spent annually on behavioral health services in Rhode Island.

Medicaid, signed into law in 1965 and expanded by the Affordable Care Act (ACA) in 2014, provides health care coverage for low-income individuals.[13] The federal government provides matching funds to states as determined by their respective Federal Medical Assistance Percentage (FMAP) in order to dispense care to eligible citizens. As of FY 2022, Rhode Island's FMAP percentage was 61.08%.[14] The number of Medicaid enrollees and total Medicaid expenditure for covered services have increased markedly each year beginning with the 2014 expansion. Between SFY 2013 and 2019, Medicaid enrollment in Rhode Island has increased from 195,637 to 308,000 and Medicaid expenditures have increased from $1.85 billion to $2.63 billion.[15]

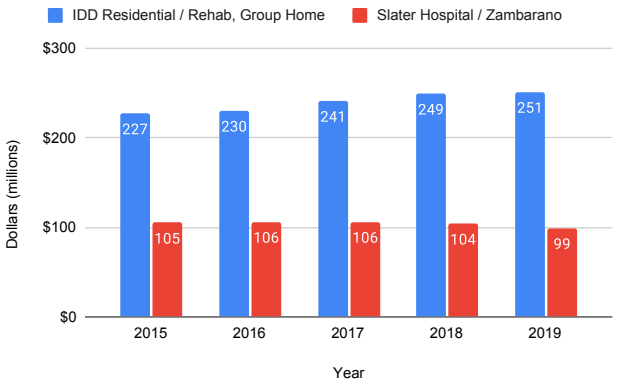
Figure 7.12: Medicaid Expenditures Administered by BHDDH



(i) Dollar amounts include expansion spending. They do not include central administration costs or exclusions such as Disproportionate Share Hospitals (DSH), Local Education Authorities (LEAs), Costs Not Otherwise Matchable (CNOM), Health System Transformation Project (HSTP) funding, or Medicare Prime.

(ii) Administration of approximately $65 million in funding for intensive behavioral health services was transferred from BHDDH to EOHHS as of July 1, 2014.

Figure 7.13: BHDDH Medicaid Expenditures by Program



(i) Dollar amounts include expansion spending. They do not include central administration costs or exclusions such as Disproportionate Share Hospitals (DSH), Local Education Authorities (LEAs), Costs Not Otherwise Matchable (CNOM), Health System Transformation Project (HSTP) funding, or Medicare Prime.

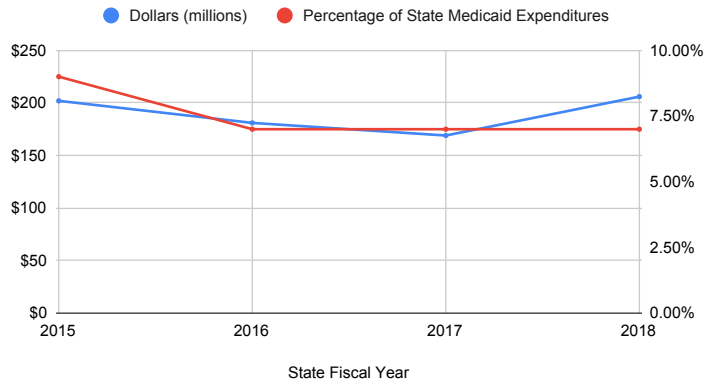
(ii) Administration of approximately $65 million in funding for intensive behavioral health services was transferred from BHDDH to EOHHS as of July 1, 2014.

Here, we seek to detail Medicaid expenditures as they relate to the provision of behavioral health services by drawing upon annual Medicaid Expenditure Reports published by the Executive Office of Health and Human Services (EOHHS). While over 85% of Medicaid funds are administered by EOHHS,[16] BHDDH is the second largest spender of Medicaid funds in Rhode Island. Between SFY 2015 and 2019, BHDDH has administered an average of $346.6 million in Medicaid funds annually, ranging from $335 million in SFY 2015 to $356 million in SFY 2018 (**Fig. 7.12**). Over this time span, these spending levels have accounted for an average of 13.68% of Rhode Island's overall Medicaid expenditures.

Within BHDDH, Medicaid expenditures go almost exclusively toward Residential and Rehabilitation Services for Persons with Intellectual or Developmental Disabilities, Including Group Homes (IDD Resdntl/Rehab, Group Home) and three hospitals (Eleanor Slater Hospital, Tavares Pediatric Center, and Zambarano Hospital), reported as a sin-

[13] Medicaid: Program History. (2021). *Center for Medicaid and CHIP Services (CMCS).* https://www.medicaid.gov/about-us/program-history/index.html
[14] KFF estimates of increased FY 2022 FMAPs and the multiplier based on Federal Register, November 30, 2020 (Vol 85, No. 230), pp 76586-76589.
[15] Rhode Island Medicaid Expenditure Report. (2021). *State of Rhode Island Executive Office of Health and Human Services (EOHHS).* https://eohhs.ri.gov/sites/g/files/xkgbur226/files/2021-05/RIMedicaidExpenditureReport_SFY19.pdf
[16] Ibid.

Figure 7.14: Medicaid Expenditures Accounted for by Professional Behavioral Health Providers



(**i**) According to EOHHS, "Professional Behavioral Health includes DHS, BHDDH and DCYF services including, but not limited to, Professional Mental Health/SUD, CEDAR (Comprehensive, evaluation, diagnosis, assessment, referral, re evaluation services), Community Mental Health Centers, and Residential DCYF."

(**ii**) 2019 expenditures are not available because Professional Behavioral Health was absorbed into the broader category of "Professional" providers.

gle program (Slater/Tavares/Zambarano). Between SFY 2015 and 2019, an average of $239.6 million in Medicaid funds were administered annually on IDD Residential/Rehab services and providers, while an average of $104 million in Medicaid funds went toward Slater/Tavares/Zambarano annually over the same span (**Fig. 7.13**). Across all facilities, professional behavioral health providers accounted for an average of $190 million annually in Medicaid expenditures between SFY 2015 and 2018, representing 7.5% of all state Medicaid expenditures over this span (**Fig. 7.14**).

For the first time, the SFY 2019 Medicaid Expenditure Report details Medicaid expenditures by diagnosis.[17] Enrollees with "Mental or Behavioral" diagnoses account for far more Medicaid spending than any other: in SFY 2019, $224 million (21% of total Medicaid expenditures) were spent on care for these individuals. Notably, in second place were enrollees with "Substance-Related" diagnoses: $85 million or 8% of total Medicaid expenditures go toward this subpopulation, despite the prevalence of substance-related diagnoses ranking nowhere near the top five among Rhode Island Medicaid enrollees. This is yet another demonstration of the deleterious financial toll of behavioral health diagnoses for individuals and governments alike. Concerningly, the SFY 2019 Medicaid Expenditure Report additionally identifies "Mental or Behavioral" and "Substance-Related" as the two fastest growing diagnosis-related expenditures in the past two fiscal years.

Ultimately, behavioral healthcare spending has tangible downstream impacts on both individual wellbeing and economic prosperity. By dedicating a full section of our report to the financing of Rhode Island's behavioral healthcare system, it is our hope to emphasize the importance of and encourage attentiveness to how money is spent on behavioral healthcare.

[17] Ibid.

Recommendations from the Mental Health Association of Rhode Island (MHARI)

In the context of the strengths, weaknesses, and unique characteristics of Rhode Island's behavioral healthcare system highlighted in this report, the Mental Health Association of Rhode Island (MHARI) has proposed below several policy changes geared toward improving the provision of care for all Rhode Islanders.

IMPROVEMENTS IN DATA COLLECTION AND TRANSPARENCY

The Corrections System

The Rhode Island Department of Corrections (RIDOC) should expand its data collection efforts with the following policy changes:

1. Upon entry into an adult correctional institution (ACI), all inmates should be given mental health evaluations, just as they are given physical exams.
2. Substance use disorder (SUD) should be included in data collection efforts, as it is a mental health disorder.
3. In addition to statistics on serious and persistent mental illness (SPMI), RIDOC should collect data on the following metrics for each inmate: length of incarceration, cost of incarceration, age, race, and gender identity

The expansion of data collection efforts within the corrections system will inform discharge planning and inform the State on what housing options and treatment services will be needed when each inmate is released into the community. Supervised/supportive housing and treatment will help prevent recidivism, and robust data collection from RIDOC will help the State quantify its success in keeping individuals with SPMI out of prison.

Increasing Diversity and Cultural Competence

1. The Department of Behavioral Healthcare, Developmental Disabilities and Hospitals (BHDDH) should require mental health professionals to disclose race, ethnicity, and spoken languages when renewing or applying for a license.
2. Health insurers should be required to collect the demographic information of members.
3. Mental health providers should be required to collect demographic information from their patients and clients.

Recording and Improving Patient Outcomes

1. The All Payer Claims Database (APCD) should include non-binary and transgender in their data collection, rather than just male and female. It should also capture employment status, race, and ethnicity.
2. Fund improved research efforts on suicide that emphasize lived experience. Men are less likely

to seek treatment and more likely to die by suicide. What helps people who experience suicidality or have almost died by suicide? Develop programs based on research findings.

3. Track, tabulate, and publicize waitlist times of intensive outpatient programs (IOP), partial hospitalization programs (PHP), outpatient providers, supportive/supervised housing, and Eleanor Slater Hospital. This could be done on the existing RIBHOpenBeds.org website, which already tracks waitlist times for beds in psychiatric hospitals, residential treatment facilities, and inpatient detox facilities.

FUNDING AND LEGISLATIVE PRIORITIES

System-Wide Reform

1. The Rhode Island Office of the Health Insurance Commissioner (OHIC) should move our healthcare payment system away from fee-for-service and toward value-based care, where prices are tied to a positive outcome.
2. The Rhode Island Office of Health Insurance Commissioner (OHIC) should conduct regular Market Conduct Exams of private insurers to ensure compliance with state and federal parity laws. Medicaid should also undergo regular Market Conduct Exams, as Medicaid pays providers the poorest rates and is not widely accepted by outpatient behavioral health providers in private practice.
3. Increase public and private insurer reimbursement rates for behavioral health providers to attract and retain in-network outpatient behavioral health providers and avoid staff shortages. By increasing reimbursement rates for behavioral health providers, Rhode Island's pool of in-network mental health providers can be grown. In turn, increased access to outpatient treatment may lessen the utilization rate of emergency departments.
4. Fund universal mental health education in K-12 schools and include information on healthy coping skills, trauma, the physiology of addiction, symptoms of mental illness including addiction, and how to access treatment and support. The rate of substance use disorders (SUD) in Rhode Island is higher than the national average. This is true for adults and children ages 12 to 17. Conduct research to explore why Rhode Island's rate is higher than the national average. What are states with low incidence of SUD and fewer deaths doing that we are not?
5. Integrate behavioral health professionals into every primary care setting. Similarly, integrate primary care services into community mental health centers.
6. The State of Rhode Island should establish and fund an Olmstead Plan to coordinate, fund and regularly assess the supply and demand of supportive/supervised housing, treatment options, services and resources for people with disabilities.
7. Integrate treatment (i.e., the intervention) and recovery in all care plans. Rhode Island Medicaid allows for extensive services to be provided by peers.
8. Improve continuity of care. Health insurers should notify mental health providers when their patients/clients are admitted to the Emergency Department.

Expanding Treatment Capacity

1. Invest in building a robust network of peer support specialists, including a system-wide program to pair patients discharged from emergency departments with specialists to support them when they return home in order to prevent readmission. Anchor Recovery is a model that provides such services to patients in the emergency department for SUD-related crises. We need a similar program for people experiencing crises attributable to other mental health conditions. People USA in New York is one example of a successful model.
2. Fund and develop additional residential treatment facility beds for SUD. Insurers should be required by law to cover the full length of treatment ordered by the clinical team overseeing a patient's care.

3. Establish and fund harm reduction programs that promote safe drug use.
4. To reduce the rate of emergency department readmissions and rates of individuals with untreated SPMI/SUD from becoming incarcerated, invest in the full continuum of care, including supportive/supervised housing and peer respite facilities. Waitlist times, tracked via RIBHOpenBeds.org as previously mentioned, can be used to help guide investment in these treatment options and services.

Prioritize Mental Health in the State Budget

1. SUD funding from General Revenue has doubled, and it is time for the same to take place with mental health funding. Increase mental health funding within BHDDH. Untreated mental illness often leads to self-medication with drugs and alcohol.
2. Increase funding for the Department of Children, Family and Youth's Division of Community Services and Behavioral Health. Children and adolescents in Rhode Island are especially vulnerable to mental health crises.
3. Invest in crisis intervention training for police officers and Mental Health Treatment Court.
4. Invest in implementing the CAHOOTS (Crisis Assistance Helping Out On The Streets) model statewide. CAHOOTS pairs police officers with social workers or mental health professionals when responding to mental health emergencies.

COMMUNITY-LEVEL AND OUTREACH PRIORITIES

1. Invest in incentives to help increase the number of Black, Indigenous, and People of Color (BIPOC) mental health providers by offering financial scholarships, paid internships and mentorships to BIPOC graduate students in the fields of social work, psychology, and psychiatry. Fund mentorship programming and support BIPOC provider talks at local schools/colleges so that students know these types of jobs are important and worth considering.
2. Increase outreach efforts to BIPOC communities, which are underrepresented as mental health care consumers. Prioritize the diversification of peer support specialists. Invest in anti-stigma campaigns through colleges, K-12 schools, places of worship, community health centers, YMCAs, etc. It is important that any educational talks are delivered to BIPOC communities by BIPOC individuals with lived experience.
3. Place a premium on early diagnosis, especially for children and adolescents. According to the World Health Organization (WHO), half of all cases of mental illness begin during childhood. Early treatment interventions yield better patient outcomes, prevent illnesses from escalating to a crisis, and save money by avoiding intensive levels of care. Emphasis on early diagnosis may manifest in one or more of the following ways:
    - Make concerted efforts to increase access to mental health providers in academic settings so that the State's ratio exceeds the recommended one counselor per 250 students.
    - Invest in increased pay for public school mental health professionals so that working as a school social worker, psychologist, or counselor is a financially viable career path.
4. Fund community libraries and other locations to loan iPads and private rooms to people who have telemedicine appointments with providers.
5. Future iterations of this report should take a deep dive into the mental health needs of Rhode Island's homeless population and children/adolescents. It should also investigate the availability of supportive/supervised housing as it closely relates to the incarceration and homelessness of people with untreated mental illness.

LIMITATIONS

In the course of completing the inaugural version of this report, we encountered several obstacles of note. In order to both provide context for this year's report and improve the quality of future reports and similar research endeavors, we use this section to describe these obstacles.

DATA DRAWN FROM THE RHODE ISLAND ALL-PAYER CLAIMS DATABASE (RI APCD)

For a detailed explanation of the scope of the RI APCD, please see Appendix C. This section is meant not to detail the contents of the database, but rather to describe the practical implications of its structure and the metrics on which it does not report.

Characterization of ICD-10 Codes as Accessing Care "Related to Mental Health Conditions"

Throughout sections 2 and 4 of this report, RI APCD data characterized as individuals "accessing care related to" various mental health conditions were generated from diagnostic codes found on medical billing records. Codes contained in the Tenth Revision to the International Classification of Diseases (ICD-10) are used for diagnostic purposes under the Health Insurance Portability and Accountability Act (HIPAA) to track healthcare statistics and billing. In this report, individuals were considered to have accessed care "related to" a specific condition if they had an insurance claim captured by the RI APCD which contained an ICD-10 code indicative of that condition. Because these data are drawn from medical billing records and not patient or provider reporting, it is possible that they do not always accurately reflect the totality of one's care experience.

For example, it is possible that a provider may not include an exhaustive list of relevant ICD-10 codes: an individual may be in treatment for an anxiety disorder and eating disorder, but the provider may record only the anxiety disorder for billing purposes. The converse of this situation may also take place: an individual may be accessing care for something other than a mental health condition, but because the individual has had a mental health condition in electronic health records previously, it is recorded on the billing claim. While such instances are likely rare, they nonetheless would represent limitations to the interpretive conventions used in this report.

Lastly, the RI APCD only captures claims ultimately paid by insurers, meaning that our report's metrics regarding service utilization do not include individuals whose claims were denied. Taken together, these qualifications prevent us from asserting that the data drawn from the RI APCD is a direct reflection of broad characteristics of Rhode Island's behavioral healthcare system, including treatment-seeking behavior, access, and use.

Characteristics of Membership Pool

The RI APCD only includes individuals who are insured through one of the means described in Appendix C. Although the RI APCD typically represents between 82% and 87% of Rhode Island residents in a given year, it is important to note that this subpopulation may not be a representative sample of Rhode Island's entire population; individuals comprising the RI APCD likely have different characteristics than those not included, including different treatment-seeking behaviors and access to care.

Residence of Membership Pool

While the majority of RI APCD members live in Rhode Island,[1] some are residents of other states

[1] HealthFacts RI: Rhode Island All Payer Claims Database Data User Guide, Version 1.3. (Jan. 2020). *Rhode Island Department of Health.* https://health.ri.gov/publications/userguide/HealthFactsRIDataUserGuide.pdf

who may have Rhode Island-based insurance plans. For example, if an individual lives in Massachusetts but works for a small business in Rhode Island and has a Rhode Island-based insurer who covers over 3,000 lives, the individual would be included in the RI APCD. Thus, it should not be assumed that RI APCD members are, by definition, Rhode Island residents.

Reporting of Key Demographics

Age

When grouping individuals by age, our data request to HealthFacts RI included "0-17" and "18 and above" as the only two age categories. However, the inclusion of the youngest individuals in the former group almost certainly depressed percentages for "Children" when reporting access rates (such as in the case of **Fig. 4.11**: *Percentage of Individuals in RI APCD Accessing Care Related to SUD by Age*. Due to time constraints, we were unable to rectify this prior to the date of publication. In future reports, we plan to consider individuals aged 12-17 as a discrete group, as seen in the National Survey of Drug Use and Health.

Gender

Gender reporting in the RI APCD is currently conducted in binary fashion. By reporting only on "males" and "females," the database is unable to provide any insight pertaining to the experiences of transgender or non-binary individuals receiving care. This is extremely troubling, given that previous studies have pointed to disproportionately high levels of reported discrimination, severe depression, and suicidality among these populations.[2] We cannot expect to meaningfully rectify any structural shortcomings in the behavioral healthcare system contributing to these disparate outcomes if the groups in question are excluded from repositories like the RI APCD.

Employment Status

The RI APCD's absence of employment status information is a key omission in the context of this report given that previous research has demonstrated that severe mental illness is strongly associated with higher rates of unemployment.[3]

Race and Ethnicity

Racial disparities in both mental health outcomes and barriers to accessing care are evident at the national level, with vastly different rates of prevalence and care-seeking across diverse demographic groups.[4] The only race and ethnicity data collected by HealthFacts RI are those that insurers provide. Because payers are not required to collect this information, not all payers report it. Of those who do, over 40% of "race" fields are listed as "unknown," and 90% of ethnicity fields are listed as "unknown."[5] This gap in reporting is an enormous missed opportunity for the State of Rhode Island, which could be using this information to explore systemic obstacles to equity in behavioral healthcare.

Geography

The RI APCD collects geographic information from members including city and state of residence (see Appendix C). Figures initially obtained from the database for this report indicated that one in eight RI APCD members changes residence from one Rhode Island county to another within the same calendar

[2] Su, D., Irwin, J. A., Fisher, C., Ramos, A., Kelley, M., Mendoza, D., & Coleman, J. D. (2016). Mental Health Disparities Within the LGBT Population: A Comparison Between Transgender and Nontransgender Individuals. *Transgender health, 1(1)*, 12–20. https://doi.org/10.1089/trgh.2015.0001

[3] Luciano, A., & Meara, E. (2014). Employment status of people with mental illness: national survey data from 2009 and 2010. *Psychiatric services (Washington, D.C.), 65*(10), 1201–1209. https://doi.org/10.1176/appi.ps.201300335

[4] Substance Abuse and Mental Health Services Administration. (2020). Key substance use and mental health indicators in the United States: Results from the 2019 National Survey on Drug Use and Health (HHS Publication No. PEP20-07-01-001). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/sites/default/files/reports/rpt29393/2019NSDUHFFRPDFWHTML/2019NSDUHFFR1PDFW090120.pdf

[5] HealthFacts RI Frequently Asked Questions: Version 1.3. (2020). *Rhode Island Department of Health*. https://health.ri.gov/publications/frequentlyaskedquestions/HealthFactsRIFAQ.pdf

year, corresponding to approximately 120,000 individuals per year. This value seemed implausibly high in the judgment of our team and, out of an abundance of caution, we elected to exclude county-level information from our report. In the future, we hope to further probe the data collection practices and conventions underlying these figures and adjust for any procedural confounds that may impact the validity of results.

Characterization of ICD-10 Codes as "Accessing Treatment"

Codes contained in the Tenth Revision to the International Classification of Diseases (ICD-10) are used for diagnostic purposes under the Health Insurance Portability and Accountability Act (HIPAA) to track healthcare statistics and billing. The conditions referenced herein were tabulated based upon ICD-10 codes listed on claims included in the RI APCD. In other words, metrics related to individuals "accessing treatment" for various mental health conditions (e.g., AMI, SUD, depression, etc.) were generated from the ICD-10 codes found on medical billing records, not from patient reporting. Additionally, the RI APCD only captures claims ultimately paid by insurers, meaning that our report's metrics regarding service utilization do not include individuals whose claims were denied. Taken together, these qualifications prevent us from asserting that the data drawn from the RI APCD is a direct reflection of broad characteristics of Rhode Island's behavioral healthcare system, including treatment-seeking behavior, access, and use.

DATA RECEIVED FROM DEPARTMENT OF CORRECTIONS

Limited Monitoring of Inmate Mental Health and Substance Use Diagnoses

As previously mentioned, the prevalence of severe mental illness and symptoms thereof are disproportionately high in the United States corrections system. In fact, the majority of states house more individuals living with mental illness in their largest prison than their largest psychiatric hospital.[6] These troubling facts reveal the importance of tracking specific metrics within incarcerated populations living with mental illness, including (but not limited to) diagnosis rates, average length of incarceration, outcomes, and cost of incarceration. In addition to these fundamental, baseline measurements, a more granular breakdown of age, race, and gender identity within these populations would lend invaluable insight as to the experiences of those experiencing mental illness from within the corrections system.

Unfortunately, the RI DOC was unable to provide aggregated data for the aforementioned metrics specifically pertaining to inmates experiencing mental illness. Aside from sparse point-in-time counts with sample sizes too small to be included in this report, the department did not have aggregated data that could be provided in a tabulated format.

While the RI DOC has been tracking the number of inmates with SPMI since July 2017, the department was unable to aggregate and share the percentages of SPMI in the overall incarcerated population and restrictive housing (RH) prior to the publication of this report. In future years, we hope that these comparisons can be completed by a member of Research and Planning for inclusion and publication here.

DATA RECEIVED FROM THE DEPARTMENT OF BEHAVIORAL HEALTHCARE, DEVELOPMENTAL DISABILITIES AND HOSPITALS

Reporting of Client-Care Staff Categories

Community Mental Health Centers (CMHCs) report the number and racial/ethnic breakdown of each client-care staff category (see Fig. 6.2, Fig. 6.3) directly to the Department of Behavioral Healthcare, Developmental Disabilities and Hospitals (BHDDH). Thus, each facility might have slightly varying interpretations of their staff position categories; in other words, all CMHC personnel were not categorized according to a standardized rubric.

[6] Torrey, E.F., Kennard, A.D., Eslinger, D.F., Lamb, H.R., Pavle, J. (2010). More mentally ill persons are in jails and prisons than hospitals: A survey of the states. Arlington, VA: Treatment Advocacy Center.

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APPENDICES

APPENDIX A: Notes on Data from SAMHSA's National Survey on Drug Use and Health (NSDUH)

A distinct advantage of the National Survey on Drug Use and Health (NSDUH) is that it uses prevalence rates of various behavioral health metrics found among survey respondents to form statewide, regional, and national prevalence estimates (e.g., the estimated percentage of individuals in Rhode Island with any mental illness). While the NSDUH is distributed annually, NSDUH reports incorporate two-year estimates based on the combined survey results of the preceding two years. According to footnotes included throughout the NSDUH, all such estimates "are based on a survey-weighted hierarchical Bayes estimation approach and generated by Markov Chain Monte Carlo techniques." For more information regarding NSDUH methodology, readers are encouraged to explore the 2019 National Survey on Drug Use and Health (NSDUH): Methodological Summary and Definitions report, found publicly on SAMHSA's website.[1]

According to SAMHSA's Center for Behavioral Health Statistics and Quality (CBHSQ), numerous changes were implemented in the 2015 NSDUH questionnaire and data collection procedures in order "to improve the quality of the data that were collected and to address the changing needs of substance use and mental health policy and research."[2] These changes impacted the prevalence estimates for the following metrics in our report: substance use disorders, illicit drug use disorders, illicit drug use, and pain reliever misuse. As a result, only data from 2015-2016 and onward were included for these metrics. More detailed information regarding the 2015 NSDUH changes and the impacted estimates can be found in Section C of the 2015 National Survey on Drug Use and Health (NSDUH): Methodological Summary and Definitions report, publicly available on the website of the Substance Abuse and Mental Health Services Administration (SAMHSA).

APPENDIX B: Methods for Computing Averages

Several figures throughout the report display an average percentage taken across multiple years. For the metrics in question, these averages were determined by first computing each year's respective percentage, and then averaging these values. For example, in **Fig. 2.8**, the 2016-2020 average percentage of individuals in the Rhode Island All-Payer Claims Database (RI APCD) accessing treatment for any mental illness at the emergency room was computed by (1) finding the yearly values of this percentage, and then (2) averaging these five values. This method of computation also applies to any average mentioned in the report's written sections but not explicitly included in a corresponding figure.

APPENDIX C: Notes on the Rhode Island All-Payer Claims Database (RI APCD)

Scope of the Rhode Island All-Payer Claims Database (RI APCD) [3]

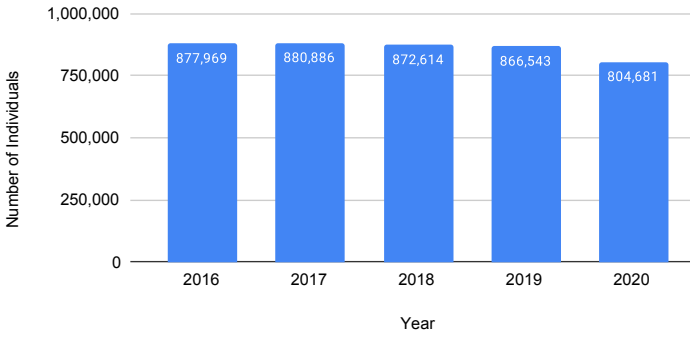
The RI APCD includes data from commercial, Medicare (both Medicare Fee-for-Service and Medicare Advantage), and Medicaid payers who cover more than 3,000 lives in Rhode Island. On a monthly or quarterly basis, these payers must submit eligibility files, medical claims files, pharmacy

[1] Center for Behavioral Health Statistics and Quality. (2020). 2019 National Survey on Drug Use and Health: Methodological summary and definitions. Rockville, MD: Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/

[2] Center for Behavioral Health Statistics and Quality. (2016). 2015 National Survey on Drug Use and Health: Methodological summary and definitions. Rockville, MD: Substance Abuse and Mental Health Services Administration.

[3] HealthFacts RI: Rhode Island All Payer Claims Database Data User Guide, Version 1.3. (Jan. 2020). *Rhode Island Department of Health*. https://health.ri.gov/publications/userguide/HealthFactsRIDataUserGuide.pdf

Figure C.1: Number of Individuals in the RI APCD



Data drawn from the Rhode Island All-Payer Claims Database (RI APCD).

claims files, and provider files. The database includes medical and pharmacy claims from the nine largest payers in Rhode Island.

During a given calendar year, the RI APCD represents between 82-87% of all Rhode Island residents (**Fig C.1**). Broadly, APCD "membership" can be defined as "Rhode Island residents and employees of small businesses (with less than 50 employees)." Thus, an individual who lives in Massachusetts but works for a small business in Rhode Island would be included in the RI APCD if the individual's insurer covers more than 3,000 lives.

All data are de-identified, meaning that they exclude "direct personal identifiers" such as the following:

- Names
- Business names
- Birth dates beyond year of birth
- Postal address beyond town/city, state, and five-digit ZIP code
- Specific geographic information that could be used to derive an exact postal address
- Telephone/fax numbers
- Email addresses
- Social Security numbers
- Vehicle identifiers (e.g. license plate numbers)
- Medical record numbers
- Health plan beneficiary numbers
- Patient account numbers

Notable Exclusions from the Rhode Island All-Payer Claims Database (RI APCD)[4]

The RI APCD does not include data from the following sources:

- Medicare D[5]
- Commercial insurance plans covering fewer than 3,000 lives in Rhode Island
- Dental insurance
- Federal programs including TRICARE, Federal Employees Health Benefits Program, Department of Veterans Affairs, and the Indian Health Service
- Uninsured individuals and other payments made out of pocket
- Disbursements made to healthcare providers as part of incentive programs for meeting cost or quality measures (e.g. pay-for-performance)
- Alternative payment models (e.g. global, capitated, and episode-based payments)
- Payments for health information technology (or other infrastructure payments)
- Exempt insurers/insurance coverage, including the following:
    - Insurers with fewer than 3,000 members
    - Hospital confinement indemnity
    - Disability income
    - Accident only

[4] Ibid.

- Long-term care
- Medicare supplement
- Limited benefit health insurance
- Specified disease indemnity
- Sickness or bodily injury or death by accident or both
- Other limited benefit policies

In response to the United States Supreme Court decision in Gobeille v. Liberty Mutual Insurance Company in March 2016, the submission of self-insured ERISA plan data to the RI APCD was discontinued as of calendar year 2016. Approximately 10% of members were excluded from 2016 submissions relative to 2015 submissions. However, the ERISA caveat does not impact this report, as all data drawn from the RI APCD were from 2016 onward.

APPENDIX D: Public School Districts Included in "Access Barriers" Calculations

The following public school districts were included in calculations of students per school counselor between 2010 and 2019:

Barrington	Lincoln	Portsmouth
Burrillville	Little Compton	Providence
Central Falls	Middletown	Scituate
Coventry	Narragansett	Smithfield
Cranston	Newport	South Kingstown
Cumberland	New Shoreham	Tiverton
East Greenwich	North Kingstown	Warwick
East Providence	North Providence	Westerly
Jamestown	North Smithfield	West Warwick
Johnston	Pawwtucket	Woonsocket

APPENDIX E: Overview of Rhode Island Correctional Facilities

Facilities for Males

Facility	Date Opened	Average Facility Population (FY19)	Operational Capacity	Notes
Anthony P. Travisono Intake Service Center (ISC) 18 Slate Road Cranston, RI 02920	1982 (expanded 1992, renovated 1995)	845	1,120	Maximum security facility which serves as Rhode Island's jail for male offenders. Inmates housed at the ISC include pretrial detainees, newly sentenced inmates waiting classification to other facilities, and sentenced protective custody.

Facility	Date Opened	Average Facility Population (FY19)	Operational Capacity	Notes
High Security Center (HSC) 54 Power Road Cranston, RI 02920	1981	86	138	Supermax facility housing inmates who require close custody and control. Also contains a Rehabilitation Treatment Unit (RTU), which provides inmates with programming and structure as opposed to more restrictive housing units.
Maximum Security (MAX) 1375 Pontiac Avenue Cranston, RI 02920	1878	394	411	The state's oldest operational prison, whose population consists of inmates serving long sentences for a variety of offenses in addition to inmates serving shorter sentences who have been transferred from other facilities for discipline/behavioral problems. Inmates are prepared for classification to lesser securities.
John J. Moran Medium Security Facility (MED) 51 West Road Cranston, RI 02920	1992	964	1,126	Medium security facility with the highest inmate bed capacity of any RIDOC facility; extensive programming is provided with the goal of preparing inmates to return to their communities
Minimum Security (MIN) 16 Howard Avenue Cranston, RI 02920	1978 (expanded 1989, 1992)	232	708	All inmates, unless medically unable to work, are employed within the institution or on public service projects.

Facilities for Females

Facility	Date Opened	Average Facility Population (FY19)	Operational Capacity	Notes
Gloria McDonald Women's Facility (WOM) 20 Fleming Road Cranston, RI 02920	2010	128	173	Houses offenders awaiting trial and three classification levels (minimum, medium, and work release).
Bernadette Building 15 Fleming Road Cranston, RI 02920	2011	n/a	100	Currently does not house any inmates; all inmates were moved to Gloria McDonald Women's Facility. Has not housed offenders since July 2016.

APPENDIX F: SAMHSA Uniform Reporting System (URS) Definitions for Non-Direct Block Grant Expenditures[5]

Service	Definition
Information Systems	This includes collecting and analyzing treatment data in order to monitor performance and outcomes. Costs for electronic health records (EHRs) and other health information technology also fall under this category.
Infrastructure Support	This includes activities that provide the infrastructure to support services but for which there are no individual services delivered. Examples include the development and maintenance of crisis-response capacity, including hotlines, mobile crisis teams, web-based check-in groups (for medication, treatment, and re-entry follow-up), drop-in centers, and respite services.
Partnerships, community outreach, and needs assessment	This includes state, regional, and local personnel salaries prorated from time and materials to support planning meetings, information collection, analysis, and travel. It also includes the support for partnerships across state and local agencies, and tribal governments. Community/network development activities such as marketing, communication, and public education, and including the planning and coordination of services, fall into this category, as do needs-assessment projects to identify the scope and magnitude of the problem, resources available, gaps in services, and strategies to close those gaps.
MHA Planning Council Activities	This includes supports for the performance of a Mental Health Planning Council or Behavioral Health Planning Council.
Quality assurance and improvement	This includes activities to improve the overall quality of services, including those activities to assure conformity to acceptable professional standards, adaptation and review of implementation of evidence-based practices, identification of areas of technical assistance related to quality outcomes, including feedback. Administrative agency contracts to monitor service-provider quality fall into this category, as do independent peer-review activities.
Research and Evaluation	This includes performance measurement, evaluation, and research such as services research and demonstration projects to test feasibility and effectiveness of a new approach as well as the dissemination of such information.
Training and Education	This includes skill development and continuing education for personnel employed in local programs as well as partnering agencies, as long as the training relates services to adults with SMI or children with SED. Typical costs include course fees, tuition, and reimbursements to employees, trainer(s) and support staff salaries, and certification expenditures.

APPENDIX G: BHDDH-Licensed Facilities

The facility types listed below are distinguished based on categories established by the Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals (BHDDH). These distinctions are part of BHDDH's licensing process, and it is important to note that facility types whose labels may sound similar to those referenced in RI APCD level of care data (e.g. SUD IOP) were not necessarily named according to the same criteria.

Facility Type	Explanation of Services
General MH Outpatient	According to BHDDH, "General MH Outpatient" refers to outpatient services delivered by BHDDH-licensed facilities (such as Community Mental Health Centers), typically for low-acuity mental health conditions. More information can be found in 212-RICR-10-10-1.6.7 under "General Outpatient Programs (GOP)", available publicly on the website of the Rhode Island Department of State.

[5] FFY 2018-2019 Block Grant Application (2018). *Substance Abuse and Mental Health Services Administration (SAMHSA)*. https://www.samhsa.gov/sites/default/files/grants/fy18-19-block-grant-application.pdf

Outpatient Community Support Program	According to BHDDH, outpatient community support programs deliver services to individuals with serious and persistent mental illnesses (and other higher-acuity mental health conditions) that demand more support than general outpatient services. Offered in Rhode Island's six Community Mental Health Centers (CMHCs), these services include office visits as well as aid with daily living activities (e.g., grocery shopping).
Mental Health Psychiatric Rehabilitative Residence (MHPRR)	According to the Rhode Island Code of Regulations, a MHPRR "is a congregate licensed residential program with no more than sixteen (16) beds which provides twenty-four (24) hour staffing. This population includes individuals with refractory psychosis; dual diagnosis (individuals with developmental disabilities and mental health issues); addiction and mental health issues (co-occurring disorders), who cannot be treated in the community through outpatient supports." More information regarding MHPRRs can be found in 212-RICR-10-10-1.6.12, available publicly on the website of the Rhode Island Department of State.
Acute Stabilization Unit/Crisis Stabilization Unit (ASU/CSU)	According to BHDDH, ASU and CSU can be used interchangeably. RI EOHHS defines these facilities as hospital diversion and step-down units for Rhode Island residents aged 18 and older who are experiencing a psychiatric or substance abuse-related crisis.[6] Services dispensed at an ASU/CSU include 24-hour crisis services, psychiatry services, medication services, and discharge planning. More information regarding ASU/CSU can be found in 212-RICR-10-10-1.6.12 under "Behavioral Health Stabilization Unit," available publicly on the website of the Rhode Island Department of State.
Substance Use Disorder Intensivee Outpatient Program (SUD IOP)	BHDDH defines SUD IOPs as programs providing nine or more hours of structured counseling per week for SUD. More information regarding IOPs in general can be found in 212-RICR-10-10-1.6.7, available publicly on the website of the Rhode Island Department of State.
Substance Use Disorder Residential (SUD Residential)	According to 212-RICR-10-10-1.3.1, residential services "means a type of service providing twenty-four (24) hour care, treatment, and support in a setting other than a hospital." More information specifically regarding SUD Residential programs can be found in 212-RICR-10-10-1.6.12.

APPENDIX H: Client-Care Staff Positions at Community Mental Health Centers (CMHCs)

Client-Care Staff Position	Explanation of Position
Licensed Chemical Dependency Professional (LCDP)	LCDPs are certified by the Rhode Island Certification Board (RICB) after applying to the Rhode Island Department of Health (RIDOH). This licensure requires the fulfillment of minimum education requirements, supervised experience, and passing of standardized exams. LCDP certifications include Provisional Alcohol and Drug Counselor (PADC), Certified Alcohol and Drug Counselor (CADC), and Certified Advanced Alcohol and Drug Counselor (CAADC).[7]
Master's Level and Above	This categorization includes all staff members who have obtained a master's degree or higher, including those who hold doctorate degrees.
Non-Master's Case Manager	Case managers monitor and assist clients throughout their overall treatment course. This may include facilitating access to medical or educational services, coordinating care, and monitoring progress.[8]
Nurse	This position category encompasses any type of nurse who does not hold a master's degree or above. This may include a medical nurse, psychiatric nurse, or others.

[6] Behavioral Health Acute Stabilization Unit. (n.d.) *Rhode Island Executive Office of Health and Human Services.* (https://www.google.com/url?q=https://eohhs.ri.gov/sites/g/files/xkgbur226/files/Portals/0/Uploads/Documents/bhasu.PDF&sa=D&source=editors&ust=1622600663291000&usg=AOvVaw2zrOVqnzNQtN1zlb3WgoLx

[7] Chemical Dependency Profession. (2021). *State of Rhode Island Department of Health.* https://health.ri.gov/licenses/detail.php?id=282

[8] Targeted Case Management: Case Management Defined. (2021). *State of Rhode Island Executive Office of Health and Human Services.* https://eohhs.ri.gov/ProvidersPartners/ProviderManualsGuidelines/MedicaidProviderManual/RehabilitativeService/TargetedCaseManagement.aspx

Peer	Peers are staff members who have lived experience with a mental illness, substance use disorder, or both. Peer recovery specialists may be certified or uncertified; this categorization includes both. Peers aid individuals in treatment and recovery by serving as positive role models and developing wellness plans.[9]
Residential Worker	These staff members work in residential care facilities with individuals in treatment for a mental illness, substance use disorder, or co-occurring illnesses. Residential workers often proceed to become case managers and may later work as part of integrated health teams.

APPENDIX I: Psychiatric Medication Classes

	Drug Classes	Definitions and Examples
Antipsychotics	First-generation antipsychotics (FGAs)	Also known as "typical antipsychotics," FGAs are commonly used to treat schizophrenia, acute mania, or agitation. Examples of FGAs include chlorpromazine, perphenazine, loxapine, and fluphenazine.
	Second-generation antipsychotics (SGAs)	Also known as "atypical antipsychotics," SGAs have largely replaced FGAs due to improved safety profiles. SGAs have been approved for treatment of schizophrenia, bipolar disorder, and as an adjunct in major depressive disorder. Examples of SGAs include olanzapine, clozapine, and aripiprazole.
Antidepressants	Selective serotonin reuptake inhibitors (SSRIs)	SSRIs are the most commonly prescribed antidepressant in the United States. Examples include fluoxetine, sertraline, and citalopram.
	Tricyclic antidepressants (TCAs)	TCAs are prescribed for depressive disorders, mood disorders, obsessive-compulsive disorder, panic disorder, and other conditions. However, they have largely been replaced in clinical use by SSRIs. Examples of TCAs include anafranil, elavil, asendin, and pamelor.
	Anti-anxiety agents (anxiolytics)	Anxiolytic medications are used to treat anxiety and its attendant physical symptoms. Examples include diazepam and triazolam.

[9] Provider Certification Standards for Peer-Based Recovery Support Services. (2019). *State of Rhode Island Executive Office of Health and Human Services.* https://eohhs.ri.gov/sites/g/files/xkgbur226/files/2021-03/peer_cert_and_app_0.pdf